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ABSTRACT

Presented are 14 papers delivered at the First Annual Spring Workshop for Professionals Serving Deaf Blind Children in the Mid-Atlantic Region (1974). Covered are the following topics regarding deaf blind children: adapted physical education, a summer day camp program, vocational and prevocational services, audiological and visual evaluations, a research project on diagnostic and evaluative programing, curriculum development from birth to 12-years-old, parent involvement, parent workshops, services in rural areas, and program evaluation procedures. (CL)

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INNOVATIVE AND EXPERIMENTAL HAPPENINGS IN DEAF-BLIND EDUCATION

PROCEEDINGS FROM THE 1ST ANNUAL SPRING WORKSHOP FOR PROFESSIONALS SERVING DEAF-BLIND CHILDREN IN THE MID-ATLANTIC REGION (SOUTH) - 1974

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ADAPTED PHYSICAL EDUCATION FOR DEAF-BLIND CHILDREN

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I. PHILOSOPHY

Provision of Total Education for All Children

Deaf-Blind children harbor the same needs for physical activity as all other children. This is apparent in one respect when we consider blindisms as demonstrated by deaf-blind children. Through blindisms, deaf-blind children demonstrate this particular need for physical activity. Since we all need physical activity as a very important ingredient in our daily living, the deaf-blind child is no different than any other child in this respect. One of the reasons that deaf-blind children may assume and demonstrate these particular blindisms, as they are referred to, is associated with the fact that they may not be receiving physical activity in their daily lives to the extent that the need for physical activity is being fulfilled. One way in which they fulfill this need independently is through the demonstration of blindisms. Now whether or not these blindisms are appropriate is a question that has not been resolved. If the blindisms are present, to eliminate them is not necessarily going to solve the problem associated with them, if in fact there is a problem associated with them. Because of the need on the child's part for physical activity, a means by which to achieve movement satisfaction is appropriate. However, normal people may not accept this demonstration as being socially acceptable, if it is displayed through blindisms. Before we eliminate, or try to eliminate, those particular behaviors we must find some suitable substitute for those actions. That isn't so easy to do. Because a child is blind and deaf, or blind or deaf, does not mean that the individual does not have to have this need for physical activity. There must be arrangements made for the child to experience the activities in movement and movement exploration, which are going to be appropriate for the satisfaction of this particular need. Rather than eliminate blindisms, it is preferred that we introduce some form of physical activity to the child to substitute or take the place of these particular blindisms. If we eliminate the blindisms, in essence we may be eliminating any means the child has developed to this point which permits him some sort of physical activity satisfaction. As far as blindisms are concerned, the need demonstrated through activity results in some small achievement of satisfaction. It would be preferred that instead of eliminating the blindisms, we substitute for blindisms with appropriate physical activity for the child. There are a number of reasons why it is important for children, all children, to participate in physical activities. The first of these has to do with vitality through activity which is physical in nature. An individual has an opportunity to become as independent, as capable of interacting with his environment, and as appropriately permitted to learn as much about himself as possible through physical performance. In addition, there is an opportunity *for the individual to develop resistance to disease. Some children with limiting physical and mental circumstances have low resistance to disease in general. This may be because the child is not involving himself with enough vigorous physical activity. This is a physiological approach having to do with the health concept as far as the daily functioning of the child himself is concerned.*

A second category to consider has to do with strength development. This is a very important part of physical fitness. When we talk about physical fitness, we are talking about something which all of us are vaguely familiar with as far as the cognitive aspect of that particular terminology is concerned. We may be somewhat aware of it as far as our actual involvement in some aspect of physical fitness and its development is concerned. By taking into consideration the needs of children who have difficulties, we must consider physical fitness. This has to do with development of such portions of the anatomy as the antigravity muscles. The antigravity muscles are those muscles which permit us to overcome the force of gravity and maintain appropriate postural positions. This ability is not something that just occurs. We have to develop this capability; we in essence, have to develop the ability of the antigravity muscles to function most appropriately. These particular muscles are involved with the quadriceps group located in the thighs, the erector spinal located in the lower back, the hamstring group located in the back of the upper leg, the neck muscles which permit the head to be held upright, and the muscles generally used in our bodies in helping us maintain an upright position in our daily living. The development of these muscles is a very necessary portion of an individual's overall development.

Another factor to take into consideration as far as strength development is concerned, relates to poor posture, or posture in general, which is demonstrated by individuals. Deaf-blind children have difficulty in demonstrating appropriate posture because if the individual is congenitally blind, he may not have had the opportunity to observe others in his environment as far as appropriate physical movement is concerned. The individual has not had the opportunity to emulate a model as far as appropriate performance is concerned, whether that performance has to do with walking, running, throwing, leaping, sitting, standing, eating, combing his hair, brushing his teeth, just thousands of everyday activities which we take for granted. These are not as easily accomplished by a blind child, particularly if he has not had the opportunity to model after someone.

Strength development is a very important influence on posture. Poor strength results in poor posture. The converse is not necessarily true. Good strength development does not necessarily result in good posture, but for the most part it can be assumed that individuals with appropriate strength development will have minimal levels of acceptable posture. Strength development also is related to a factor which I mentioned previously, that having to do with model emulation. The deaf-blind child may not have had the opportunity to see how something is done the right way or to see how it is done at all because of his blindness. Without model emulation, he may become a very strong individual and he may be able to use his antigravity muscles to great advantage, but his posture would not indicate that he is using those muscles most appropriately. So, through the development of strength, posture, and with utilization of suggestion that comes through model emulation, (that does not necessarily have to be physical at all times but can be a matter of contact, aware of the individual as he is going through a physical activity of some kind,) and tactful stimulation, the deaf-blind individual can receive an understanding of what movements are required in a particular activity.

A third factor to take into consideration as far as reasons for physical activity are concerned has to do with the social aspects of the individual's development. We all function quite appropriately in our environments because we feel fairly confident in what we are doing as far as our movements are concerned. We are not concerned with where we are going, what obstacles are in our pathway, if we are going to bump into something, if we are going to walk into someone in the hallway, or hurt ourselves in some way by not being aware of some obstruction. This occurs because we have confidence in our movement and environment. Without this confidence that comes both from past experience and the opportunity to observe others in our environment we are unable to function appropriately as far as movement is concerned. This is not the case for blind children. They have to become aware of their environment, develop confidence that will allow them to become aware of their environment, and feel comfortable in doing those things in their environment which are going to be most conducive to their well being. This does not mean that confidence in movement will allow an individual to operate more appropriately in his environment but he will have less difficulty as far as that involvement is concerned.

There are many socially acceptable habits demonstrated through the demands placed upon an individual. Some of these socially acceptable habits have to do with such things as eating, ambulating, and dressing. Considering the first, that of eating, brings us to the point where an individual at different ages and stages of his development will be expected to demonstrate certain eating habits which are associated with his particular chronological age. There are some eating habits demonstrated by children which are immature and messy. At other stages of the person's development, and related to chronological advancement, such immature habits are not going to be readily acceptable. This happens because we as members of society establish particular expectations for other members of that particular social situation. Whether a person is sighted or blind has not as much influence on the individual's development and the expectations of that individual as far as eating is concerned as we would expect. The reason for this is that we subconsciously expect other people not to make their presence distinctive, not to bring attention to themselves, through such an activity as eating. The way the individual is going to demonstrate independence and conformity with social expectations is to be able to demonstrate minimal skills which are acceptable to the group of which that individual is a member. Unfortunately, blind individuals are not as capable of developing and demonstrating those eating behaviors which are so highly regarded by society. Through physical activity and through the abilities demonstrated and acquired from physical activity, the blind individual may be a more socially acceptable person by his environment and by those in his environment if he is demonstrating those behaviors which are closely related to that of a normal individual. Whether this is fair, whether it is justified, whether it is questionable is not the point at this particular time. What we are most concerned with is how appropriately that blind individual will function in a normal environment. Therefore, it is of greatest advantage to the individual if he can develop those minimal skills which are most appropriate as far as his eating behavior and habits are concerned. One way of doing this is assisting the individual in becoming more understanding of himself in what he can do functionally in his particular visually limited world. Going beyond eating but still relative to socially acceptable behaviors is that of ambulating in one's environment. We assume, and by nature of our individuality take for granted again, the ease with which we have learned to function appropriately in our situations. We have learned through visual auditory input channels how to function in situations that are going to be of greatest advantage to us. Over a period of time it is generally accepted and expected that individuals will be able to walk and run and function appropriately as far as these movements are concerned. Some of these things we learn simply because we are associating with people who do these things or who perform these activities and we observe what they are doing. But a blind child, as mentioned previously, does not have the opportunity to experience modeling. For an individual to become as appropriately capable in his environment as we would expect based upon his limitations, we would hope to arrange situations where he will have the opportunity to develop those patterns of movement which are essential to his minimal functioning as far as his daily living is concerned. A third consideration as far as socially acceptable habits is concerned has to do with dress. We are not concerned now with what kind of dress an individual assumes; what we are concerned with more importantly is how capable the individual is in caring for himself as far as dress is concerned, and whether or not he is able to dress himself and undress himself. This is something again that we learn as individuals simply through the presentation of models, the availability of instruction, and the observation on our parts by other individuals who are demonstrating these skills. It is socially acceptable after a particular age to be able to dress and undress oneself. To do this appropriately requires training and experience which is not as easily attained by the blind child as it is by a sighted individual. This of course, then places the blind child in an untenable situation as far as the attainment of these particular socially acceptable habits are concerned.

Through some forms of physical activity, we have an opportunity to assist the individual in developing not only favorable dress habits, ambulation abilities, or eating habits, but also to develop socially accepted habits in general. The way this can be done of course is through a variety of activities that lead to the development of the social awareness of the individual about himself. This is not something that happens haphazardly. This is something that develops through the establishment of appropriate techniques which are going to in turn promote the attainment of particular objectives.

This brings us to our fourth consideration, that having to do with confidence. Confidence, as we would expect it to be demonstrated by a deaf-blind child, would be the capabilities of that individual to function in his environment most appropriately. His limitations that are physical or mental in nature, are going to influence his independence and mobility. To function most appropriately in our environment, we have to feel comfortable to a great extent with the situation we are in, with ourselves, and with others around us. If we have fears or doubts and are concerned about how we are going to function in a situation, then we are going to limit ourselves as far as most appropriate function is concerned. With this in mind there is a great need on a deaf-blind child's part to become independent to the extent that he is able to stay as mobile as possible under the circumstances of his restrictions. Of the considerations which we have discussed up to this point, the most important may be the utilization of physical activity as a base for the establishment of a successful orientation and mobility program. We have developed minimal socially acceptable standards and habits as far as eating is concerned, as far as dressing is concerned, and as far as mobility is concerned.

What we intend to accomplish even further is to assist the individual in becoming as independent, mobile, and confident in his environment as possible. Everything we have discussed up to this time may be laying the foundation for a more successful orientation and mobility program which will then result in the individual being able to interact with his environment most appropriately as far as movement itself is concerned.

Who must assume the responsibility for education of deaf-blind children, particularly physical education for deaf-blind children? Historically, Samuel Gridley Howe of the Perkins Institute in Boston, the founder of the Perkins Institute in 1841, developed some initial considerations as far as training in movement ability for deaf-blind or deaf children is concerned. Amazingly, not much has been done since then in the establishment of programs for these children and their physical education. There has been some recent awareness exhibited by leaders in the area of education as well as psychology, to indicate that there is a very great need being generally unfulfilled as far as the blind child is concerned relative to his physical education. This seems to be an impossible situation. The benefits of exercise and their unending usefulness are well documented. The persons most responsible for this are those involved in the teaching profession. This is our responsibility--it doesn't belong to someone else. There has to be a cooperative effort established by teachers and physical educators, other individuals who are involved in training programs which are most appropriate for a particular child. We can't slough this responsibility off on anyone else. It is something which we must face up to and assume in providing for the total education of the deaf-blind child.

II. ACTIVITIES TO USE WITH DEAF-BLIND CHILDREN

There are very few restrictions anticipated and allowed for regarding the conduction of a physical education program for deaf-blind children. In a very real sense, as far as restrictions are concerned, and considering them in light of the activities that we will be promoting and utilizing, there really are not any restrictions that could be discussed on a general basis. Of course, there will be some restrictions which will depend upon particular situations as well as the individuals in those situations. These will be restrictions observed by the instructor himself.

A consideration to be made has to do with allowing the child to explore his environment. We all explore our environments, regardless of our age. It's a matter of developing familiarity with our surroundings to be more at ease and learning from our environment through the activity. We must arrange the situations which will allow movement for the deaf-blind child so that he will in essence learn as much as he can about his environment no matter how restricted or expansive it may be. The allowance for this movement is going to be hindered somewhat by the influence of his particular handicapping condition. That does not mean the deaf-blind child shall be stifled, sheltered, or in any way restricted from learning about his environment in total. On the other hand, instructors and teachers should anticipate the possibility of a child injuring himself as would any child who is participating in a motor activity. To anticipate is to be very conscious of what is transpiring in the environment at that particular time and in being aware of the hazards that are associated with that activity. No matter how well planned the training program, the training situation, or the area in which this particular program is being implemented, there still is a degree *of potential danger concerning the child in that environment. This anticipation will allow a teacher to see the development of particular potentially hazardous situations and correct them before they become an imposition on the child. The same holds true with normal children if we stop and consider the fact that in many instances children are hurt needlessly. The reason I say needlessly is because with some anticipation, closely related to observation, the child can be detoured around circumstances which could be harmful to that child. If we are aware of what a child is doing, we can short-circuit or eliminate those situations which may prove hazardous. This does not mean that we remove obstacles from a child's path or try and eliminate all the hazardous obstacles.*

As the child begins to function in his environment, he is not going to be placed in a situation where all of the obstacles are going to be removed from his path. This means that he is going to have to learn to function with those particular obstacles and with obstacles being encountered by him all the time. The same holds true for normal people who have no restrictions as far as vision and hearing are concerned. It is anticipated that the individual will explore his environment, learn as much as he possibly can about it, and then function most appropriately in that particular situation. What we do is allow the individual through movement and the exploration of his environment, to become as familiar with his surroundings as possible. This will provide a degree of certainty, a degree of confidence to the child so that he will be able to function best. While we are allowing this movement and environmental exploration, we are anticipating what the child will do. We are aware of the way he is functioning within his environment and the awareness he has for obstacles and how he functions in and around those obstacles.

There is one over-riding development which is adding greatly to the confidence and the success of the child as far as movement is concerned. What we are doing is diminishing or eliminating personal apprehension as far as the child is concerned. Since he is becoming more familiar with his surroundings, he is becoming more capable in his movement. He is becoming more a part of that environment and functioning within that environment more appropriately. In essence,we are detracting from or eliminating the apprehension relative to a new or unfamiliar environment.

A child is going to be pretty apprehensive and uncertain in new surroundings. The same holds true for a deaf-blind child. What we hope to do and what we should be anticipating doing is eliminating as much of this apprehension as possible. A way to do this is to provide circumstances where the child becomes familiar with his surroundings and feels confident in what he is doing. How are we going to communicate with this deaf-blind child as far as his activities are concerned? It is very difficult to imagine circumstances whereby an individual's ability to function is imposed upon by restrictions in vision and audition. Through haptic perception we can assist the child in becoming aware of occurrences in his environment. This haptic ability is a combination of tactile (skin sense) and kinesthetic (muscle sense) learning. The tactile has to do with touch and the kinesthetic with movement. The tactile and kinesthetic senses are not independent of each other and the combination of the two has evolved into what is known as the haptic sense. Through touch and through movement we can assist a child in performing particular activities. If we are interested in having a child roll, run, even walk, a way of communicating this to the child is through the haptic sense. A particular example could *be centered around the child grasping the instructor's elbow to follow in a particular activity. Of course this will depend upon the child's mobility. If the child is extremely young and beginning to develop his walking ability, then it is obvious we will not be able to take as great advantage of the situation as we would normally. However, even with a younger child we still can use the tactile or kinesthetic approach in assisting him through some activities.*

An additional consideration is communication with a deaf-blind child, involving familiarization with the instructor's presence. In other words, make the child aware of your presence so that he feels comfortable with the knowledge that someone is there with him. It can be a terribly frustrating situation for a deaf-blind individual not to know someone is there with him. If he needs assistance, he can anticipate receiving it relative to the situation at that time.

It is obviously a very good approach to let the individual know that you are there. How do you let the individual know that you are there? Let him feel you are there--touch his hand, touch his shoulder, let him feel your shoulder or arm or face--to understand that you are there. Once the child knows that you are there, then you must be conscious at all times of him and what is going on at that particular time. Do not let your attention stray, do not become interested or engrossed in something else that is going on across the room or across the field or down the hall; rather give your undivided attention to the individual. Making a child aware of your presence is a very important part of communication with a deaf-blind individual.

Another factor to consider as far as communication is concerned involves the individual being knowledgeable as far as the immediate environment is concerned. He should understand what physical limitations there are in a particular situation. In understanding the immediate environment in which he is functioning, the deaf-blind child must understand what physical limitations there are as far as that environment itself is concerned. He must know where walls are; he must know where obstacles are; he must know where other people are; he has to be familiar with the floor materials; and he should know what restrictions there are very generally regarding the environment. In essence, he has to become aware of his surroundings to the extent that his knowledge of the immediate environment will be a very useful tool in promoting his feelings of security to function in that environment.

I mentioned earlier the haptic sense as far as communication with the deaf-blind child is concerned relative to physical activity. This haptic sense is a useful adjunct as far as guidance through activities themselves are concerned. When we look at guiding a child through activities, we can consider it in three phases. The first of these is physical contact. We should always maintain physical contact with a child to let him know that we are there and that we are paying attention to what he is doing. This physical contact can be constant or it can be supportive. By being supportive, we allow the individual to understand that someone is there with him. Another consideration involves moving from the physical contact to the circumstance where we are close to the individual but not necessarily touching him. This serves to reinforce his confidence in functioning. We want to be close but we don't have to be in constant touch with him. This comes once the individual develops feelings of security and we are able to communicate with the child as has been mentioned previously. The third phase of this guidance through activities has to do with the establishment of a situation where the individual then becomes capable of moving alone in his environment. By moving alone, he demonstrates confidence, knows his surroundings, understands immediate environmental restrictions, and is able to function appropriately in that situation.

This guidance through activities is going to depend upon the achievement of various developmental plateaus. We begin working with the child, especially a younger child, with strong physical contact, strong referring to a constant physical contact. Once the individual becomes appropriately functional in his environment, then we can be close to the child, we can anticipate what he is going to do, but we do not necessarily have to be in contact with him. When he establishes the ability to function alone in his environment, then he is allowed to do that, so that we can be less aware of the individual and his needs on a one-to-one basis. Essentially what we are saying is that he has developed the ability to move about his environment in a particular situation quite capably and we are secure in our own minds that he is capable of functioning in that particular situation.

Specific activities to use with deaf-blind children have to do with locomotor development, strength development, games and sports, and generally those we consider useful for elementary school age children. The first of these are locomotor activities. We all are capable of performing locomotor activities but not to the extent we anticipate. These include such movements as: running, walking, skipping, rolling, crawling, hopping, jumping, and leaping.

These types of activities are quite appropriate for us. We learn to perform because we are human beings and are born with the propensity to demonstrate these locomotor activities. Locomotor activities are those movements which propel human beings from one point to another in their environment under self-control and through self-propulsion.

Some locomotor activities for deaf-blind children would be related to walking a straight line, for example. It has been observed through evaluation situations that deaf-blind children have a tendency to veer. Deaf-blind children, as well as blind children, have a tendency to veer. Blind adults, over a length of one-hundred feet will have a tendency to veer about 40 degrees off the straight line, which is a considerable distance. It is a good training activity to arrange a situation where a deaf-blind child has to walk a straight line.

We would make arrangements where the deaf-blind individual learns how to function in moving about obstacles in his environment. This doesn't mean that we are developing situations where the child has to overcome obstacles. This also does not mean that we are removing obstacles. What we are doing is assisting the individual in ambulating about his environment with obstacles there and functioning with them, and in spite of them. When one has to learn how to react to obstacles and learn how to handle himself as far as the obstacles themselves are concerned, then he will become more proficient in moving about his environment. As I indicated earlier, obstacles should not be removed from the path of a deaf-blind individual. They should be there and he should be able to function with them.

Strength development is a very interesting consideration. Consider an activity such as jumping a rope. Is it possible in your mind to teach a deaf-blind child to jump rope? People who work with blind children I think would be in agreement with the understanding that a deaf-blind child could learn how to jump a rope. This question is, "Can the individual conceptualize what has to take place as far as the jumping of that rope itself is concerned?" Without a long discussion of the technique to use for this particular activity, it is pretty generally understood that with proper technique a child could learn to jump a rope in spite of his visual/auditory restrictions. We may have to adjust our approach somewhat, but nevertheless the child still could learn how to jump that rope.

In jumping rope there is, through the movement itself, an opportunity for strength development in the thighs and lower legs. This is an obvious advantage in developing strength.

We can place these children in weight training programs. Without attempting to create muscular specimen, they can handle weights in a weight-room or in a weight training situation which will be very appropriate and justified for them. There are variations in weight training which cut down on the possible over-development as far as the musculature is concerned.

Weight training itself can be a very useful adjunct to a training program in developing general physical fitness as well as strength. We should keep in mind that upper arm and shoulder girdle development is a very important part of the development of an individual, no matter what age or what sex. American children are notoriously weak in their upper arm and shoulder girdle strength. The instructor of these activities should keep this in mind so that there will be considerations made for this particular part of strength development.

Another factor is cardiovascular endurance relative to the deaf-blind child. Cardiovascular endurance develops primarily from running. How do we teach a deaf-blind child to run? The easiest way would be to have the child become familiar with his surroundings, develop a feeling of security, know and understand that no one is going to leave him, and then have him run with a sighted individual. The sighted individual could either hold the hand of the child or use a very short piece of rope and let the blind person hold on to it. Of course, there will be some restrictions which will be part of the situation but nevertheless it can be accomplished with a relative degree of ease. The situation may be different regarding sprinting, but in running a sighted individual can very easily assist a non-sighted person.

The third consideration involves games and sports for blind children. Depending upon the age of the child, of course, there is going to be a variation as far as the activities themselves are concerned. There are many wrestling programs existing for blind children.

Not only is wrestling a good opportunity for a blind child to experience rewarding physical activity, it also is another means by which components of physical fitness may be improved. Through participation and training, he can become a much more effective performer in everyday life. The success aspect is immeasurable. Up to that time, the blind child may not have had the opportunity to indulge in an event with satisfaction of such magnitude.

Modified tumbling is another activity possessing potential invaluable to the blind child. Those modifications include definite understanding on the child's part that he will be safely spotted at all times. Individual activities include forward and backward rolls, cartwheels, head and hand balances, trampoline movements, and those stunts involving a partner (i.e., balancing and strength stunts).

Recreational participation includes swimming, rowing, and skating. With assistance from a sighted partner or instructor, the blind individual can row a boat, roller skate or ice skate, and participate in swimming. Individually, blind persons can function quite appropriately in water recreation.

Minor considerations should be made relative to the age, experience, and maturity of the blind swimmer. With proper preparation and professional guidance, a blind individual can learn to enjoy the water as completely as a sighted person.

Track and field events can be modified for the blind through the use of waist-high rope guides, set up on a 100 yard dash for example. Other modifications include overhead lines with a length of rope attached to which the blind runner maintains his grasp. There have been blind letter-winners in college cross-country who traveled the required distance by holding on to a short length of rope held by a teammate.

What can be arranged for a blind person regarding dance? Those with adequate hearing can respond to the auditory stimuli in associated body movements. With the deaf-blind, there are necessary adjustments. Having the participants on a wooden floor will relay vibrations through bare feet. Without "hearing" the music, a deaf-blind child can respond by means of vibrations received through tactile stimulation of the soles of his feet.

Considerations must now be made for the child of elementary school age. All children desire and should receive an opportunity to explore the space in their particular environment. This provides an opportunity for a child to learn about his space, how he best functions with it and which movements are going to be the most appropriate for his learning about limitations of that space. We all live in a certain territorial restriction. Although this territorial restriction may be somewhat of a suggested limitation, there is a need for the individual to learn as much as he possibly can about that particular space which he requires for his daily living and activities. The blind child, due to the limitations and restrictions placed upon him, has an additional problem in learning how best to use his space. He is restricted in the input received from the visual channel. The deaf-blind child goes beyond the problems experienced by the blind child in that he has two channels of input which are now restricted. So, not only is the deaf-blind child unable to respond to his spatial exploration due to limitations in vision, but he is also restricted by limitations in audition. Obviously, this individual is going to be very restricted in how he responds to that particular space which his body displaces. While most of us can function in a situation because we are able to make the appropriate adjustments to that situation as far as movement is concerned, there is a definite lack of input relative to the deaf-blind child receiving appropriate stimulation that will permit him to react most favorably in learning about the space in which he functions. He has difficulties in knowing space restrictions, how limited the use of that space may be, and understanding what elements of that environment may impose a threat to his successful function.

Closely associated with space exploration is exploration that involves the actual movements required for the person to learn about his environment. Due to the nature of handicapping conditions under which a deaf-blind child must function, there is a definite reluctance on his part to move about his environment with a degree of security. The child, in most circumstances, has been the recipient of bumps, bruises, and abrasions which have led him to feel very insecure about his environment. Not only does he have recollection of experiences which have resulted in his being injured, but also he has had the experience of being inept when it comes to moving about his environment. A deaf-blind child should have situations provided for him which will lead to the development of confidence in his movement about his particular surroundings.

Infants begin to learn about their environment through movement at a very early stage of their development. They are constantly moving, touching, looking, and rolling to become more familiar with their immediate surroundings. In the process, they are learning how best to use their bodies as far as particular actions are concerned. They also are learning about that particular environment in which they are existing at that time which will then lead to a normal adjustment and familiarity with their surroundings to the extent that they are able to function most appropriately. In learning about their environment through movement exploration, children secondarily are developing those movement actions which will be most beneficial in support of their developing patterns which will be of use in the future.

Deaf-blind children have difficulties in this aspect of their development because of the lack of confidence which comes from input through the auditory and visual channels, which most of us use to an advantage. Such a child, because of his condition, is restricted in how much input he receives. Therefore, he must depend upon the other channels which provide less than a majority of the information necessary for him to function advantageously.

Very early in his life, the deaf-blind child should be provided the experiences which will result in his developing confidence in his movements relative to the situation in which he functions. The child should be provided the opportunity to develop an awareness of the objects contained within his environment around which he must function. We do not necessarily remove the obstacles from the individual's path. Rather, we would assist the child in such a way that he would develop the ability to understand that such obstacles are in his immediate surroundings. Once he has achieved this level of understanding, however limited it may be, the child is on his way to becoming a willing participant in those activities which will allow him to learn more about his environment.

Those of us who are sighted have learned about our bodies, and what they look like and how they function, due largely to the visual input we have received simply through observation of other people in movement. The blind child is not so fortunate. He does not have the opportunity to observe through modeling what the human body looks like and what some of the movements associated with that body demonstrate. It is imperative to have an understanding of body image. One way which is useful in assisting a blind child with the development of an understanding of his body shape and contour is through tactile stimulation. In such a situation, the child utilizes his hands in going over the contours of his own body as well as those of other individuals and learning, through touch, how the individual is shaped. He then will be able to internalize this tactile information to such an extent that he will hopefully develop a better understanding of what he is shaped like.

Once the child understands his body shape or body image, he then is able to develop appropriate actions resulting in maximum efficiency as far as the utilization of his body in movements is concerned. One consideration that must be made is the development of laterality. Laterality is the understanding of the body to such an extent that each side can be used independently of the other. This is an indication that the individual understands there is a mid-line to the body. He knows he can function with that mid-line and he understands that each side, though it is a part of the total body, can function independently. An example of this would be the development of the child's ability to drink from a container such as a glass or cup, from an action utilizing both hands to ultimately an action using one hand independent of the other. Individuals progress through a chain of movements which leads to this development. One of the reasons we are able to progress through this series of events is because we are the beneficiaries of visual input. This visual input is the result of our being able to see other individuals and learn from observation. The deaf-blind child does not have this opportunity. Therefore, the establishment of appropriate activities for the development of such body understanding as laterality requires the teachers of this individual to be aware of his needs. This awareness then can be used to an advantage through the establishment of activities useful in developing these skills.

The elementary age deaf-blind child has unique problems which must be taken into consideration. Through simple activities such as movement exploration, the development of body image, the understanding and exhibition of laterality, and the accomplishments of movement in general will lead to a more appropriately adapted child who has definite space and movement restrictions and can operate successfully with such restrictions.

III. TECHNIQUES

Innovative techniques in programming for adapted physical education are necessary if services are to be provided for deaf-blind children. No longer are the standbys of former programs providing the solutions to the problems manifested by deaf-blind children. There is an obvious need for individual instruction and participation which must be kept foremost in mind by the individual responsible for the program.

At the elementary level of instruction, which includes the primary or pre-school level, there are many activities which must be taken into consideration. Opportunities for movement exploration should be made available for the deaf-blind child. He should be provided situations which will result in his learning as much as he can about his environment and its restrictions. We must go beyond the point of having the child sit quietly or move slowly about his environment because we are afraid that the individual will hurt himself in some way. The opportunity for trial and error learning must be established for these children. They must learn about the restrictions through personal experience as well as the opportunities to receive most beneficial input from activities leading to most appropriate adjustment. The child must be provided situations which will lead to the development of body awareness. He should experience climbing activities, obstacle course activities, as well as tumbling activities. This will result in the child developing an understanding of what the body can do and what it cannot do, how it can be maneuvered to greatest advantage, and what coordinated activities are going to be necessary to result in most appropriate action.

All of us function in our environments with space limitations and an understanding of these limitations. The same may be said for the deaf-blind child. Not only must he be motivated to learn more about his environment, but he must simultaneously understand that there are particular restrictions which must be learned. When these restrictions are understood, and the child still is able to function appropriately with minimal influence of a threatening nature, then the individual's confidence is his performance will begin to increase.

An individual's ability to learn through movement, and to learn movement activities, is going to be very closely associated with the confidence the individual has in himself, his environment, and his performance capabilities. Once the individual begins to manifest this feeling of confidence, then the ground work has been established which will lead to his becoming a more appropriately adapted individual in his particular situation. One of the greatest handicaps, or restrictions, which impedes the development of performance by deaf-blind children is the fact that they have very little confidence in themselves, their surroundings, or the individuals who are in their immediate surroundings. Through movement activities of various types, the individual can learn more about himself and his movements which will result in the development of an attitude receptive to suggestion that he learn even more in regard to his environment.

Locomotor activities are movement patterns demonstrated by individuals. These patterns involve walking, running, rolling, leaping, jumping, and throwing. These are just a few of the locomotor patterns which are possessed by humans. Because we possess these movement capabilities does not mean that they will be developed to greatest advantage unless there is positive influence from environmental sources. This is one reason why physical education programs are so important at the early stages of an individual's development. We not only should learn to function most appropriately through locomotor activities; in addition, we should learn to function most appropriately to the extent of our capabilities.

Locomotion is the movement of the body from one point in space to another point in space under self-propulsion. We are capable of receiving environmental feedback through the auditory and visual channels which will indicate to us our degree of success in most appropriate movement. Without input from these two channels, we would not be as capable of learning through our movements.

The elementary age individual should benefit from those activities which are going to lead to appropriate adjustment and movement. In the process, he will develop an understanding of his body, realize the restrictions imposed by the space in which he functions, and learn to function most appropriately in that environment. This will lead to the development of confidence which then promotes the willingness on the individual's part to learn as much as he can about movement. This will lead to further attempts on the individual's part to develop the activities in movement which are going to be used to greatest advantage in the individual's existence.

When dealing with small groups of children, there are some basic considerations to keep in mind. In this particular situation, small groups refers to three or four children. At the elementary level, the child should *have some of the following experiences established for him. He should learn that movement can be accomplished in a safe environment. The way this safe environment is to be established depends upon particular situations. Basically, the individual must come to the realization that he is relatively safe in that particular environment and will not be the recipient of unknown or unexpected injuries.*

At this particular level, some suggestions for environmental structure which will promote the understanding of a safe environment would include the following: a large room with floor covering of sufficient thickness to diminish the chances for injury in the event of falls. An example of this could be a wrestling room with wall-to-wall mats in it. These mats provide a safe underfooting for the individual. Additionally, most wrestling rooms in public schools will have protective matting to a height of about three or three and a half feet on all walls. The individual can learn the extent of the protective mats on the floors and the walls through exploration of that environment and movements of the hands to transmit this information to the brain. The child, or children, can move about that environment by either crawling or being assisted by a sighted individual. In moving about, the child can touch the matting on the walls and the floor, roll on the floor, and understand through touch that there are protective surfaces which he will come in contact with. This will alleviate the attention the individual must give to his well being. That means he can spend more time, and make more effort in becoming more movement oriented. He can spend time previously utilized in making certain he was not going to be injured, or hurt in some way, in a more productive manner relative to the movement in that particular situation.

Large grassy areas outdoors can be used to a great advantage. Not only does a child have an opportunity to move about a safe environment, but he is also provided a situation where he can benefit from activities conducted in fresh air and sunlight. Grassy areas are generally minimally restrictive if they are of significant size. The child will realize that he can move about in that situation without being influenced by the possibility of injuring himself through contact with an unexpected obstacle. The use of inclines can be a distinct opportunity for teaching some activities. Combined with the force of gravity, these inclines can aid the individual's moving. He can run down hills, roll down hills, run up hills, and learn how to use his body in movements which are at slight inclinations other than those previously experienced.

A blind child never has the opportunity to really express feelings of freedom in his movement. No matter how freely sighted individuals exhibit their varieties of movement, they still receive visual input which permits slight adjustments resulting in movement most beneficial to the individual. For the blind child to develop feelings of freedom in movement requires very serious consideration in the establishment of the situation and the types of activities utilized. The development and the provision of these experiences will require a considerable amount of time and effort on the instructor's part, both in preparation and application.

The teacher should maintain fairly close contact when working with children in small groups. There should be maintenance of adult supervision in close proximity to the individual. This does not serve as much for assisting the individual as it does provide a means by which appropriate anticipation will result in minimal adverse influence. This way, the child can be aided for safety purposes while at the same time be guided away from situations which can prove harmful.

When dealing with older children who have restrictions in vision and hearing, there is a particular attitude which must be established by those who are working with these children. They must keep in mind that these children have limitations. However, these limitations may not be those limitations which the child exhibits as much as the limitations which are imposed upon the child by those who are responsible for his well being. The fear of injury may not be a feeling demonstrated by the child more than it is an attitude which is imposed upon the child by his parents or teachers. We may inculcate this fear of injury through our own fears which are then fostered upon the individual. We may be fearful that the child will experience harm to the extent that we overprotect the individual and do not allow him the opportunity to experience situations which he will have to deal with for the rest of his life.

To permit most successful involvement with an individual's environment, we must arrange situations which are going to lead to successful experiences. In the establishment of these situations, we must make certain that we do not eliminate all of those factors which will be useful to the child in functioning most appropriately in his environment. We cannot eliminate all of the danger factors. We rather should assist the individual in recognizing his own limitations. With an understanding of his limitations, knowledge of environmental limitations, and realization of movement capabilities, the individual will depend less on others for assistance and more on himself for independence.

In promotion of locomotor development, there are some general considerations. Any time we move about our environment, we must have input significant enough to warrant our feelings of security in moving about that environment. One way in which to establish these feelings of confidence with a deaf-blind child is the maintaining of contact with a sighted person while performing some of these locomotor patterns.

Before a blind individual can move appropriately with a sighted individual, he must understand how best to maintain contact with the sighted individual. Generally, the blind individual will grasp the sighted person's arm at the elbow joint, or just above the elbow. The sighted individual carries the appropriate arm at a normal 90 degre angle. This method of assistance allows the blind individual a degree of control over the speed or direction of the sighted individual through the movement. It is not a matter of the sighted individual holding on to the blind person and dragging him along through a series of activities. Through such contact a locomotor activity such as walking can be obviously arranged to meet the exercise needs of the blind individual. To attempt further locomotor participation, such as running, would not be suggested with this method of contact. However, there are ways in which sighted and blind individuals can participate together in running. A short length of rope can be grasped at either end by the sighted and blind individuals. In this way contact is maintained, although direct contact is not established and maintained, so that there is a degree of freedom in movement by both participants.

A lead-up of such situations will ultimately result in the establishment of solo movement activities by the blind individual. He will have learned about his environment to the extent that he feels relatively secure in moving about without being unduly injured.

In the establishment and conducting of programs in movement for deaf-blind children, there are some techniques as well as technical developments which are needed by teachers. These needs are not necessarily the result of the teacher's innovative thinking. Instead, they are the result of influence from a variety of sources.

Teachers should be open for suggestions from other professionals and parents regarding programs and activities for deaf-blind children. That is not to say that other professionals and parents know the teacher's job better than that teacher, but they do have similar interests as far as the educational development and achievement of these children are concerned. Being receptive to suggestions does not mean that the suggestions have to be utilized completely; rather, it is a means by which a teacher can augment the teaching situation to the benefit of the child in that particular circumstance.

All teachers have particular ways in which they conduct training programs and provide experiences for children. Many of these situations can be successfully modified to meet the needs of children who have problems of various types. In addition, the teacher can rely on past experience and information gleaned from the literature to appropriately influence the learning situation. Due to the nature and variety of past experiences, many teachers can modify that which has proved successful with other groups of children and use it very appropriately with deaf-blind children.

A basic consideration which I think teachers do not use to the best advantage involves improvisation of activities by the child or children in a particular group. Children should in some part of their program have an opportunity to devise activities and implement movements which are most significant to them. They can develop personal activities along individual lines which are going to be important to them. Many times what the child will demonstrate in the way of interest may be more closely associated with individual selection than selection suggested by the teacher. To develop this technique, the teacher must communicate the feeling of freedom to a child which will result in his expression of a very unique activity. The uniqueness lies in the understanding that the individual is performing according to his own desires. Before this situation can be established and maintained, the individual must feel relatively secure in his surroundings. He will be very guarded in his performance if he is not certain of the provision of safety.

Teachers are quite adept at utilizing techniques which have been generalized by authorities in the field. We do not necessarily take what an individual suggests verbatim and apply it to our class. Instead, we modify and adapt some techniques which we, as teachers, feel to be significant attributes in the provision of a satisfactory program for our students. Some of these individuals in movement development include Charles Buell. He has written a significant amount appropriate to the needs in physical education for the blind child. His explanations are concerned primarily with blind children of adolescent age. The needs of these blind children can be met through involvement with regular athletic competition under the guidance of a very skilled coach. The results from such participation are as valuable for the deaf-blind child as they are for the sighted child.

Raymond Barsch has developed what he describes as the movigenics theory. He contends that individuals move because of their information-seeking tendencies. The movigenics theory refers to movement as it relates to learning. With a deaf-blind child, the movement efficiency matrix is very appropriate when consideration is made for the components of that matrix. These components are involved with basic fitness skill development in such areas as muscular strength, coordination, and balance.

One of the most recent advocates of play situations in the promotion of learning is that of Bryant Cratty. He explains that games enhance learning. The learning situation does not necessarily occur in the classroom. A child learns through a variety of experiences which are arranged in many situations. Learning should be fun and at the same time alter the behavior of the individual. He has devised a variety of activities which can be used directly or modified in dealing with deaf-blind children in the school. Of the individuals briefly discussed here, Cratty probably has most appropriate application to the deaf-blind child. Activities suggested in a variety of publications can be used most advantageously.

A few years ago, Newell Kephart developed his theory of perceptual motor match. Without a discussion of what this perceptual motor match entails, an indication of significant components will be briefly mentioned. Initially, he feels that posture and balance are of singular importance in the adjustment of the individual to his environment. We are constantly assuming body positions which are demonstrated by posture. The assumption of these positions results in our demonstration of balance. This balance is in direct response to the influence of gravity upon our bodies. This influence of gravity is maintained and exerted throughout our lives. We must learn to function most appropriately through postural adjustment and response to the force of gravity on our bodies. The blind child has difficulty in correct posture assumption and development of balance because of (1) lack of model emulation and (2) movement activities which will promote appropriate visual stimulation necessary for the maintenance of balance.

Kephart discusses contact as being a very important part of a child's perceptual motor development. His explanation of contact had to do with the manipulation of objects by hand. Many children are deprived of opportunities to manipulate objects of various sizes, shapes, and textures simply because objects with these differing characteristics are not in their environments or provided for their experience. The blind child particularly can benefit from such opportunities if the experiences are arranged for him. Finally, Kephart discusses receipt and propulsion. These elements are concerned with the receiving of objects coming toward an individual and the releasing of objects away from an individual. Practical observation and experience in receipt and propulsion result in the individual catching and throwing a ball, for example.

Techniques which can be used to an advantage by a teacher are associated with similar objectives which are used in regular physical education classes or can be used by the regular classroom teacher with necessary modifications. These objectives increase minimal physical fitness levels.

For purposes of daily living, it is essential that all individuals maintain at least minimal levels of muscular performance. Unfortunately, many adults maintain only these minimal levels of performance. To perpetrate this on children functioning in public school situations at this time is a distinct disservice to these children. The situation is one of increasing jeopardy as far as children with problems are concerned when considering the minimal levels of fitness which they maintain and are not adequately programmed to increase. There should be consideration for improving these minimal levels of fitness for all children, and particularly those children who manifest problems.

The activities which are now used in educational programs should be expanded to provide a variety of methods by which objectives can be achieved for greatest advantage. Through the establishment of objectives, which are basically modifications of objectives used in other situations, there can be demonstrated improvements in various aspects of the individual's development. His confidence can be increased so that he is willing to participate to a greater personal benefit. When he feels comfortable in doing what he is attempting, then he will feel more secure in himself in associated activities. His willingness to participate will be a result of confidence which then leads to the establishment of social advantages. Once the child realizes that he can do something, knows he is not going to suffer the repetition of the failure syndrome, he becomes a willing participant in the activities. Then a great socialization factor develops which can become a distinct advantage. This in turn leads to improved performance to the extent that the individual may feel that he has developed a degree of skill. With this realization, his attitude may be favorably affected regarding physical activity.

Once a positive attitude regarding physical education is entrenched within the individual's daily functioning then for all intents and purposes the individual has the means by which to function more appropriately. Regardless of the restrictions he may have, the deaf-blind child is still capable of learning, performing, and functioning closer to the potential which he possesses.

The need for physical education and recreation activities for deaf-blind children exists. Teachers and other professional individuals involved with the educational development of deaf-blind children must recognize the fact that physical activity can be a very useful adjunct to the total development of the child. We must find the means by which provision for the fulfillment of this need will be made. We cannot depend upon anyone else to do it; we cannot expect anyone else to do it. We only must look to ourselves and our professional responsibilities in meeting the needs of these children.

A SUMMER DAY CAMP PROGRAM FOR DEAF-BLIND CHILDREN

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First of all, I must make it clear that I am the administrator of the program which I will describe. I view my function as an administrator as one in which I strive to develop and maintain an atmosphere in which highly qualified staff members can carry out their function and develop programs with as little interference from me as possible. We have been very fortunate in attracting a teacher of the deaf to our program who is able to function well under these conditions. Mrs. Vicky Meyer was in charge of this program and deserves the credit for its success. Since she is in the audience, I would like for her to stand and be recognized.

The involvement of the Charleston Speech and Hearing Clinic in programs for deaf-blind children came about more as a result of philosophy than anything else.

We believe and attempt to put into practice the philosophy that children are children first and are handicapped second. Our philosophy is and has been to provide a child with everything in a program that a normal child would receive plus the added skills necessary for his or her particular handicap. The skills required for dealing with a special handicapping condition should never replace but should supplement basic skills required for all children. The program grew out of our program for the hearing impaired and it is from this view point that I want to speak.

Prior to 1965, deaf and hard of hearing children were seen in our program on an individual basis. In 1965 we organized our first kindergarten and nursery programs for the hearing impaired. These were traditional oral programs.

The first major change came in the summer of 1968 when we decided that language development was language development; consequently we decided to include language delayed children without hearing impairment in the program. The results were very encouraging. The hearing impaired children prospered as did the language delayed children.

Another change which brought us on our way came when we decided to add a kindergarten teacher to our program in addition to the teacher of the deaf. Since our teacher of the deaf was highly qualified in working with hearing impaired children, we determined that the second person should be a specialist in the field of early childhood education not a teacher of the deaf. We have not retreated from this philosophy and only veered from it once in order to protect the position. The rationale for this is that special teachers know what handicapped children can not do. We want to focus on what they can do.

The most important change came when we decided to accept two normally hearing children into our kindergarten program for the hearing impaired. These children were one year in age below the chronological age of the hearing impaired children. We insisted with the parents that these children could stay in our program for only one year, then they should be enrolled in a kindergarten program for the normally hearing. Much counseling was required initially for the parents of the normally hearing children but they began the program enthusiastically and when it was concluded both sets of parents asked that their younger children be allowed to enter the program at the proper time. The adding of the normally hearing children to this program was a tremendously successful innovation in our program.

You see, we have a history of experimentation, of trying new things--a day camp program for the deaf-blind was one more such challenge. There were some important obstacles to overcome and yet it was in the overcoming of the obstacles that the real story emerged. We had the teacher of the hearing impaired and the kindergarten teacher. The aides who applied had the necessary background and enthusiasm about working with these children. We had no experience in working with deaf-blind children and we had no facilities for food preparation, but we did have a background of working with children and we did have our philosophy that states that a child is a child first and should always be treated in that manner.

We long ago learned to rely on the Charleston community for help. The Citadel, the military college of South Carolina, was engaged in preparing sandwich type lunches for one of the Federal programs. They were willing to include us; however, these lunches did not provide the necessary ingredients for a teaching program built around eating habits and social skills; therefore, we needed to look somewhere else for our food program. Several blocks from the Charleston Speech and Hearing Clinic there was a Rodenberg's supermarket with a fine delicatessen. The owner of the delicatessen not only agreed to prepare lunches for our children but also offered to do it at a reduced price even though we did not request it. He stated that they wanted to do it because they felt what we were trying to do was something that should be done and he wanted to be a part of it. After this phase of the program started, there was so much food on each tray that we had to reduce our order.

Mrs. Louise Ravenel, a member of the President's Committee on Mental Retardation, called one afternoon to offer the use of her swimming pool as often as we needed it. With the other excellent facilities in Charleston, our problems were solved.

A day camp type program was planned in order that the children could be exposed to as many different experiences as possible. We wanted to stay away from our regular academic program.

The teacher in the program planned sereral units for the four-week program. Field trips were an integral part of each unit.

The program began the first week in July. Therefore, the first unit dealt with flags and food. The second week dealt with birds. The third week with weather and clothing, and the fourth week with animals and insects.

There were field trips to the Marina, a Coast Guard sailing ship, the beach, Hampton Park, Hardee's restaurant - the hamburger chain, Charleston Museum, and Charlestowne Landing - the bicentennial park. The children were taken swimming twice each week. The program ran from 8:30 to 2:00.

This was planned as a recreational and social adjustment program. We did everything we could to make this a fun learning situation. All of the children were evaluated by the team at the University of South Carolina but due to secretarial problems we did not receive the evaluations until after the program. Of course, we had conducted evaluations on many of the children ourselves. There were five children in the program ranging in age from 4 years, 9 months to 7 years, 6 months. There were 4 boys and 1 girl. One child regularly attends the South Carolina School for the Deaf but had no transportation funds for their summer program. The staff included the head teacher, the kindergarten teacher and an aide.

Here it is time for a commercial. During my entire professional career, I have always dreamed of the time when we would have the money, the time, and the staff to operate a program as it should be operated. Due to the support of the South Atlantic Regional Center for Deaf-Blind, the counsel and support from the South Carolina director of these programs, Mrs. Beth Marcum, the enthusiastic backing of the staff and Board of Directors of the Charleston Speech and Hearing Clinic and the support of the Charleston community, that dream was realized and the program was terrific. It is, in my opinion, the most successful program that we have operated.

We do not have any research findings to report. We made no new discoveries and we developed no new hypotheses. We did determine that this was a worthwhile approach to programming for some deaf-blind children. Consequently, we developed a year-round kindergarten program and for the summer 1974 we will double the length of our day camp. In addition, we will have the children for one week in a residential setting and after that we will bring the parents and children in together for counseling sessions. We also hope to videotape part of the day camp sessions. We believe that in bringing the children in for a one-week residential program, we will learn a great deal more about each child which will help in developing his or her program and with counseling the parents. We also believe that we will give the parents a much needed respite from their day to day responsibilities for their severely handicapped children.

"VOCATIONAL COUNSELING FOR DEAF-BLIND CHILDREN--A REHABILITATION MODEL"

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Introduction

There remains before us here today the task of providing habilitation and rehabilitation services to the vast number of individuals experiencing diminished hearing and sight. It should, therefore, be a goal to provide effective services. It is quite apparent to each of us here today that without the attention, concern, commitment, and cooperation of each of us, this goal will remain as impossible as man's power to create life itself. For me as a human being, an individual, a professional....I refuse to accept the view that this goal is unreal and mere fantasy. I acknowledge it as a reality.

This conference on "Innovative Techniques in Dealing With Deaf-Blind Children" is significant and timely. In the next few years, our capacity to deliver the kinds of services that we proclaim deaf-blind children need is definitely going to be challenged. Moreover, as rehabilitation becomes increasingly a "right" rather than a privilege, the people we rejected in the past will refuse to be rejected any longer. Our roles as agents of change will inevitably be questioned and challenged. Needless to say, among the people who will question and challenge what we have done, what we are doing, and what we will do, will be the deaf-blind clients, themselves.

During the past five years, the identification and rehabilitation of deaf-blind persons has received significant attention. This attention has included the establishment of ten regional centers across the United States for the purpose of: identifying those deaf-blind children who were not receiving services; developing consultation and training programs to assist both parents and practitioners to understand and work with deaf-blind children; and for promoting the development of new programs and services for deaf-blind children. Through these efforts, the number of deaf-blind children identified as needing service has increased tremendously. As of January, 1973, 5,300 children had been identified by regional centers as being deaf-blind.

This substantial increase in the number of children has seized the attention of most service-related disciplines, and has caused professionals to become more concerned about the needs of deaf-blind children. This noticeably rapid increase in the identification of deaf-blind children coupled with the increase in the number of professionals involved has created an increase in the number receiving some type of habilitative and rehabilitative service. These needs and concerns have also caused professionals to take note as to the past, present, and future services. Yet, the habilitation and rehabilitation of deaf-blind persons remains a far-reaching goal only as long as we as professionals allow it.

In discussing the topic of "Vocational Counseling for Deaf-Blind Children--A Rehabilitation Model", I wish to: 1) focus on the challenge for professionals, parents, community, and agencies; 2) discuss existing research; 3) discuss the concept of vocational counseling; 4) discuss the prospects for success; and 5) comment briefly on recommendations for habilitation and rehabilitation of deaf-blind children.

The Challenge

The overall mission of all local, state, and federal service agencies is to facilitate human effectiveness. In the field of rehabilitation, vocational awareness, selection, training, and placement are the most sought after goals. It appears from a review of the literature relating to the habilitation and rehabilitation of deaf-blind persons, that this population presents a unique challenge to achievement of these goals. Needless to say, a review of the literature only serves to confirm that which many of us here today have already experienced, and are experiencing on every single occasion that we have the opportunity to interact with a deaf-blind person. This is to say, that the deaf-blind population represents a very diverse group of people with very diverse needs. The diversity in the deaf-blind population manifests itself in the form of multiple handicaps seldom encountered with any other population. Among the multiple handicaps identified through a recent study in 1973 are: brain damage, cerebral palsy, epilepsy, heart disorders, emotional and behavioral disorders, learning disabilities, mental retardation, orthopedic disorders, and perceptual motor disorders.

Dr. Harriet Kopp (1973), chairman of the Department of Speech Pathology and Audiology at San Diego State University, has posed some very significant questions which I feel each of us has asked ourselves at one time or another. Namely: "How can the diagnostician or the statistician evaluate the cumulative problem of the individual resulting from the combination of hearing loss, moderate motor discoordination, severe visual deficit and epilepsy?"; "Is such a combination more or less disabling than a severe hearing loss coupled with mild mental retardation and a perceptual motor disorder?"; "Where are the diagnosticians capable of such evaluations and of maintaining close and intimate relationships with the educational and rehabilitation establishment?" These questions are only a few of the many questions which we as professionals, laymen, parents, and administrators continuously ask. I do not propose to answer these questions, nor do I propose to clearly and without reservation stand here and advocate that anyone does. Nevertheless, these questions need to be answered and that is part of the reason why we are here today.

I shall borrow from a poem most appropriate for the occasion, entitled "Just For Today". It reads, "God grant me the serenity to accept the things I cannot change; the courage to change the things I can, and the wisdom to know the difference". I find the poem most appropriate because in providing the atmosphere, environment, and growth producing experiences needed by deaf-blind children, we are often unaccepting of the things we cannot change. I can imagine that many of us here today attempt to deny the obvious handicaps many of these children possess. I have encountered individuals in the past, including counselors, administrators, and parents, who fail to accept the obvious limitations of a particular individual. Often the result is that the handicapped individual labors under the goals and expectations of others, *which can be far removed from those of his own. I think we can all see how such an individual is striving, not for himself but rather to resolve the frustrations and guilt of the counselor, administrator or parent. The results are obvious; the individual satisfies few of his own needs, his frustration increases tremendously, he grows to resent and distrust his environment, and he views little positive growth within himself. I characterize the resultant individual as very hostile, afraid, and functioning significantly below his ability.*

Further, I view all of us here today as possessing the courage to change the things which we can. When we assess the present functioning level of a deaf-blind child in terms of communication skills, social and psychological adjustment, pre-vocational and vocational awareness, educational level of achievement, self-care and independence, mobility, and attitude toward work, the resultant picture provides us with something with which to begin development and growth. As I view the process, I see that by engaging in the assessment of each child, we can: 1) determine at what level he has achieved; 2) determine at what level he is functioning; and 3) introduce measures to increase and develop his ability for growth and independence. Therefore, we can change these identifiable and unidentifiable entities by our insight, dedication, and involvement.

Finally, do we have the wisdom to know the difference between the things we cannot change and things which we can change? Need I ask, for asking implies that I am unsure of you and need your affirmations. I feel that your presence here implies your commitment. It also affirms your commitment to your community and agency.

In my assessment of a program's effectiveness in the past, it has been my experience that many program administrators and staff attempt to develop a "one-stop service". In their attempt to do so, they often isolate and neutralize their relationship with other agencies. The results are quite obvious. The relationship between agencies is extremely poor, the effectiveness of services to clients is diminished, the relationship between staff and clients is jeopardized, and the entire community of agencies and clients continues to experience a sense of inadequacy. It is in instances such as these that our wisdom and dedication are challenged. It is here that we must choose between services to deaf-blind children, parents and community, or services to agencies. I realize that the former area, services to deaf-blind children, parents and community is our expressed ideal. But is it our choice? Will it be to provide services to agencies or services to deaf-blind children, parents and community? You decide!

Research

Let me take this opportunity to review some of the significant research relating to deaf-blindness. Significant research by noted academicians in the field of deafness, blindness, and deaf-blindness has provided qualitative and quantitative results. Much of this research has been realized through the efforts of the Department of Deaf-Blind Children at Perkins, the American Association of Workers for Deaf-Blind Persons, Inc., the Industrial Home for the Blind, the New York University Deafness Research Training Center, and countless professionals indirectly involved in research at the local level.

Again I draw your attention to the research and program implementation presently underway by many researchers and counselors, among them, Dr. Jerome D. Schein of New York University's Deafness Research and Training Center and Dr. Peter J. Salmon, Director of the National Center for Deaf-Blind Youth and Adults. Internationally known is the work with deaf-blind children of Dr. Van Dijk published by Rotterdam University Press. As I bring the research closer to home, I must commend the coordinators, staff, and local program professionals in the regional centers across the United States. Having met most of the regional coordinators, I sense a great commitment and dedication to the implementation of effective services to deaf-blind youth and adults.

It is quite obvious to me that counselors must deal with the here and now, which might frequently force them to work outside a theoretical context. To do so, and meet with some degree of success, is both necessary and recommended, but not necessarily ideal.

It is very remarkable to see the number of counselors who, due to distaste and lack of time, find theories and research irrelevant and beyond them. Much of this has grown out of the lack of time to become involved in such, a lack of commitment to the profession, and just a basic matter of taste. Any of these reasons leaves the field of vocational counseling increasingly dependent on researchers, academicians, and others often far removed from the population of which it professes to have significant expertise. By choice, I will not propose any answers to these potential problems at this time, but will merely state that there are inherent dangers in a system which perpetuates the limited availability of counselors and academicians to interact concomitantly in research and client services.

Among the concepts about vocational counseling which go more or less unchallenged is the notion that vocational information, i.e. pamphlets, films, visits to factories and offices, and speakers representing various vocational fields, facilitate vocational choice by better informing youth about the "facts" pertaining to vocations (Osipow, 1968). Further, Osipow (1968) raises some significant questions regarding this concept. Among them are: How does this information accomplish the task of facilitating vocational choice? Under what conditions does it do so? Does vocational information provide useful information for all students at all times in the early stages of vocational decision-making? Are there circumstances when vocational information obscures rather than enlightens students about vocations?

Other questions raised by Hulslander (1958), Gonyea (1962), Holland and Nichols (1964), and countless others reflect the uncertainty of theories and concepts regarding vocational choice. It is quite evident to me that what the counselor decides to do when faced with such situations depends upon his ideas and conceptions about interests and what they are. He need also be concerned with how they are acquired, what factors determine vocation patterns in the normal course of events, and what circumstances can prevent a pattern from crystallizing as it should. The results of research obtained in such a context are more likely to be integrated into counseling practice than the results of research that do not stem from theory.

Vocational Counseling

Having introduced some significant questions regarding vocational choice, I wish to introduce to you the tenets of my concept regarding the actual implementation of my beliefs and ideas regarding vocational counseling. They are: 1) vocational counseling is person-centered--with self-concept and individual need as key constructs; 2) vocational counseling is for all students, not just those who are terminal; 3) vocational counseling activities must be continuous, sequential and multi-dimensional; and 4) the purpose of vocational counseling is not to force children into early decisions, but to provide them with a wide base of experience so that when they make decisions they will make realistic ones, supported by a background of knowledge and experiences.

I wish to place particular emphasis on the first tenet which directs itself toward the person with self-concept and need as key constructs. This position grew out of the work of Ginzberg(1971), Super (1957), Maslow (1954), Rogers and client-centered counselors (1951). This position holds as its central theses that: 1) individuals develop more clearly defined self-concepts as they grow older; 2) people develop images of the occupational world which they compare with their self-image in trying to make vocational decisions; 3) the adequacy of the eventual vocational decision is based on the similarity between an individual self-concept and the vocational concept of the career he eventually chooses; and 4) the needs of individuals may be arranged in a hierarchy.

It is my strong belief, and I venture to say that there are others of you who will agree, that vocational counseling is "person oriented". This is to say, that counseling must be directed toward achieving individual awareness, acceptance, development, and independence. What does this mean to each of you? Needless to say, we all will agree on many goals. This is not to say, however, that we will not share in some core goals; it is merely to say that each of us as individuals has certain ideas which we hold as significantly valid. We all maintain some degree of flexibility as individuals which are equally applicable to the deaf-blind individual. Dr. Ed Hammer (1973) states, "if there is one statement that can be made in summary about the deaf-blind population, it is that this is a highly diverse group in which each person requires a unique approach to formulation of his own individualized program". He further states, that in developing programs and services for persons who are deaf and blind adjustments are required in evaluative procedure, and flexibility is essential in the way experiences are offered. Significant is the fact that normative group comparison is negated, demanding that each person must have an individualized program which allows evaluation of his progress in terms of the personal achievement and attainment of objectives.

In vocational counseling, I am constantly reminded of the individual's self-concept and needs. It is without a doubt that the perceptions that a deaf-blind individual has of himself significantly influence his vocational choice. Donald Super (1957) drew the assumption that every given man possesses the potential for success and satisfaction in a variety of occupational settings. Needless to say, there are inherent dangers in this assumption when we attempt to apply it to the deaf-blind individual. Still it conveys the idea that in order to provide vocational counseling for deaf-blind individuals we must foresee these individuals as capable of maintaining employment and independence in a variety of settings.

I would also like to draw your attention to the fact that vocational self-concepts develop on the basis of children's observations of and identifications with adults involved in work. There is evidence to show that because some deaf children seldom see deaf adults, their concept of their future life and development is distorted and confused. It is also a fact that these same children have problems developing positive self-concepts in part due to the lack of reinforcement from deaf-adults. I have also been told by deaf children that maybe they just died when they grew up. It is possible that this void has grown from their lack of exposure to deaf adults engaged in vocations with which they could identify. I foresee these same problems becoming more evident with deaf-blind children as they approach vocational education and training. It is therefore very important that each deaf-blind child have someone and something which he believes in and identifies with.

Preparation for this cannot begin too soon. Ideally, it starts with early diagnosis of deaf-blindness, followed immediately by parent counseling. Too often, a lack in these two has led to neglect or unconstructive handling of the child. Consequently, knowledge of and the meeting of his needs comes too late to permit his developing to the limit of his innate maximum potential. Counseling then is very important even in the prevocational years of the individual. Where then must we concentrate our energies and how must they be implemented? We must concentrate our energies on assisting the individual in reaching "his" maximum potential and development. Again we must accept the basic premise that each individual has an innate potential for achieving some degree of satisfaction. We must also accept the view that, if given an opportunity, and provided with adequate opportunities, each deaf-blind child can and will reach his level of satisfaction. We must also accept the view that if provided with adequate counseling, education, and training, most deaf-blind children can achieve some degree of gainful employment.

As I look back on the basic needs inherent in each of us, I cannot help but see our basic needs for safety and protection, belongingness, love, respect, self-esteem, identity, and self-actualization.

Therefore, I view vocational counseling as a process. A process directed with the individual deaf-blind child and for the individual deaf-blind child. It is a process with the goals of achieving a positive self-concept, good attitudes and work habits, satisfaction, respect, identity, and countless others, depending on the capacity and environment of the individual. Having stated the characteristic objectives of the counseling process, let us now examine the underlying needs of each individual.

Underlying Need Concept

Inherent in each of us is what Maslow (1954) has described as "the basic needs". They are: 1) physiological needs; 2) safety needs; 3) belongingness and love needs; 4) esteem needs; and 5) the need for self-actualization. These needs form the basis for the formulation of a positive concept of motivation. They are diagrammed in terms of a pyramid with the physiological needs at the base and the need for self-actualization at the pinnacle. These needs form what Maslow describes as man's "need hierarchy".

Examining the "need hierarchy" involves a cursory overview of the preconditions for the basic need satisfactions. Such conditions as the fredom to communicate, freedom to investigate and seek for information, freedom to defend oneself, justice, fairness, and honesty are examples of such preconditions for basic need satisfactions. Thwarting of these freedoms will be reacted to with a threat or emergency response. These conditions are not ends in themselves, but they are almost so, since they are so closely related to the basic needs. These conditions are defended because without them the basic satisfactions are quite impossible, or at least severely endangered. In vocational counseling, these needs are to be recognized and respected, as they are the keys to developing a positive and unconditional relationship with an individual, regardless of the handicap or disability. Needless to say, there are other preconditions which we can further identify.

In vocational counseling, we must begin to assess the level in the "need hierarchy" at which the individual is functioning in order for us to be able to determine some of the needs of the deaf-blind child. I have labeled these needs "pre-vocational needs" because they precede any attempt at vocational counseling. Therefore, we must assess the physiological needs of the individual. That is, those needs which consist of hunger, drink, and the like. A person who is lacking food, safety, love, and esteem would probably hunger for food more strongly than for anything else. If all the needs are unsatisfied, and the organism is then dominated by the physiological needs, all other needs may become simply nonexistent or be pushed into the background. I have used this example simply to demonstrate how basic our needs system is and how there are certain things which we simply take for granted.

Given the above, we can then proceed to the need for safety. All that has been said of the physiological needs is equally true here, although in less degree. An indication of a deaf-blind child's need for safety is his preference for some kind of undisrupted routine or rhythm. He seems to want a predictable, orderly world. For instance, injustice, unfairness, or inconsistency in the parents seems to make a child feel anxious and unsafe. Young children seem to thrive better under a system that has at least a skeletal outline of rigidity, in which there is a schedule of some kind, some sort of routine, something that can be counted on. I can express this more clearly by saying that a child needs an organized world rather than an unorganized or unstructured one.

If both the physiological and the safety needs are fairly well satisfied, there will emerge the love and affection and belongingness needs, and the whole cycle already described will repeat itself with this new center. This need is manifested more clearly with the absence of friends, or a parent, or a pet. The thwarting of these needs is the most commonly found core in cases of maladjustment and more severe psychopathology. Also important is the fact that the love needs involve both giving and receiving love.

Each of us here has a need or desire for a stable, firmly based, usually high evaluation of themselves, for self-respect, or self-esteem, and for the esteem of others. Being divided into two subsidiary sets, we can further identify our needs. These are, first, the desire for achievement, for adequacy, for mastery and competence, for confidence in the face of the world, and for independence and freedom. Second, we have a desire for reputation, a prestige, recognition, importance and appreciation. Satisfaction of the self-esteem needs leads to feelings of self-confidence, worth, capability, of being useful and necessary in the world. Thwarting of these needs creates feelings of inferiority, of weakness, and of helplessness. As Maslow (1954) states, "the most stable and therefore most healthy self-esteem is based on deserved respect from others rather than on external fame or celebrity and unwarranted adulation".

Finally, we come to the need for self-actualization. As we have no doubt seen in the many individuals with whom we have worked, a new discontent and restlessness will soon develop, unless the individual is doing what he is fitted for. What a man "can" be he "must" be. This need may be called self-actualization. The specific form that these needs will take will vary from person to person. In one individual it may take the form of the desire to be a programmer, in another it may be expressed in printing, still in another as a writer. In summary, the clear emergence of these needs usually rests upon prior satisfaction of the physiological, safety, love, and esteem needs.

Vocational counseling must, therefore, be directed toward the attainment of definite needs which, together with the counselor and client, will prepare the individual for coping with other uncertainties. This does not, however, eliminate the need for the individual client to attain knowledge of his potential capabilities, the world of work, educational and vocational training available, and potential job placement. The entire process is multidimensional involving every facet of the deaf-blind child's person, environment, and existence, resulting in what Helen Keller described as "the dignity of self-support and the joy of usefulness". For the counselor, he must maintain warmth, respect, empathy, genuineness, and positive regard for the individual. There is very little room for obstruction in the process, which must be eliminated if the child is to reach his potential for independence and self-respect. A desirable philosophy regarding the actual vocational education of the deaf-blind child seems to be expressed by Boyce R. Williams concerning the deaf: "Vocational teachers should be developers of good attitudes and work habits and should have realization and acceptance of the fact that their subject matter is not an end in itself; but is a means to the greater end of teaching boys and girls to be better, more effective, men and women."

Recommendations

For the counselor involved, the implementation of vocational counseling does involve some very specific preconditions. It requires: 1) a knowledge and awareness of the individual and his potentials; 2) a knowledge of vocational and educational assessment tools; 3) a knowledge of the world of work; 4) a knowledge of vocational and educational training programs; 5) an awareness of community resources; 6) an awareness of placement facilities; 7) a knowledge of counseling and human potential and 8) an awareness of his own limitations and assets. These are but a few of the skills which a counselor need possess in vocational counseling. In order to achieve expertise, some degree of formal training is advised and recommended, though this does not insure effectiveness in the area. In essence, there are many individuals who maintain a high degree of effectiveness without the training.

For the parent of the deaf-blind child there are obvious areas previously discussed which should attract your attention, specifically, the process of initiating habilitative measures with the early diagnosis of deaf-blindness. Obviously, too, there are many discomforts associated with the process and parental support is needed. At this time, there is a severe need for a positive and empathic relationship between the husband and wife. Evidences too is the need for counseling for learning to cope with the situation and for maintaining a productive and healthy environment for the child. Siblings have also been found to respond favorably to counseling when introduced during this critical period.

It is the interpersonal process, not vocational counseling itself, which readies the deaf-blind child for independence and self-respect. Yet, vocational counseling is not the end. Rather, it is a process, a congruent entity, which serves to assist the rehabilitation toward its goal. It is not an end itself. It does not satisfy all of the individual's needs. Therefore, it must be seen as only a significant part of the total process, involving all other aspects of the individual's reality. Therefore it is extremely critical that it be realized that a positive environment, involving the entire family, be maintained. Ann Roe (1957) has demonstrated very clearly several specific child-rearing techniques, all of which have to do with the manner in which parents interact with the child. Her work indicates how the loving, accepting parents offer satisfactory gratification of their children's needs at most levels. The personality that results in the child from accepting parental techniques is able to seek the gratification of his needs at most levels. Carolyn Torrie (1972) of the Callier Hearing and Speech Center, Dallas, Texas has compiled some significant research relating to the needs of some parents of deaf-blind children, therefore it is apparent that we can draw from these resources. It is very desirable to me that parents of deaf-blind children be afforded concrete services in the form of support counseling. This counseling can and should be developed through community agencies, assisted by city, state and regional officials.

Extreme emphasis needs to be placed on the development of training, job placement, housing, vocational skill, and transportation by community agencies and organizations. It is with the assistance from these entities that far greater services can be realized. There is no doubt that upon careful scrutiny by each of us, we can identify some particular areas in which more effective services can be provided to deaf-blind individuals. Your attention can and will bring about far greater awareness of what can truly be accomplished through dedication and commitment.

Conclusion

I have spoken a lot of words today. To some of you they make a lot of sense, to others, they make a lot of noise, but to most of you they convey a message regarding a body of knowledge and expertise still undeveloped. Therefore, it is the task before each of us here today to ready ourselves to provide a service to a group of individuals who, without each of us, will remain as isolated and undernourished as we have allowed some to remain in the past. It is to each of us a challenge, not one of us can be excluded.

As I part, I am reminded of a story which I wish to share with each of you and particularly to Hank Baud and his staff. The message is incorporated in this story.

> In this day and age with the so-called generation gap between youth and adults being given lipservice throughout our nation, the generation gap exists in a small North Carolina community where full democracy is still practiced through the townhouse meeting. No decision was made in the community without obtaining the viewpoint of one who was respectfully addressed as the "Old Man" because of the extent of his wisdom and knowledge.
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> Two young men in the community grew to resent the old man and searched for a means of expressing their resentment and embarrassing the old man. One day, while walking in the woods, they captured a bird and the idea occured to them that this might be the means for expressing their resentment. They successfully sought and called a townhouse meeting and when the citizens had been assembled, one of them confronted the old man with the bird cupped in his hand and said, "Old man, I have in my hand a bird. Is he alive or dead?" The plan was that if the old man said the bird was alive, they would crush the bird and let it fall at their feet, but if the old man said it was dead, they would open their hands and let the bird fly away. The old man pondered for a few minutes and replied -- "It is in your hands."
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> What occurs as a result of this workshop is "In your hands."

BIBLIOGRAPHY

Burns, Daniel J., and Stenquist, Gertrude W. "The Deaf-Blind in the United States; Their Care, Education, and Guidance", Rehabilitation Literature, (November 1960), 334-344.

Corkhuff, Robert R., and Berenson, Bernard G. Beyond Counseling and Therapy. New York: Holt, Rinehart and Winston, 1967.

Crammatte, Alan B., and Miles, Dorothy S. Multiply Disabled Deaf Persons: A Manual for Rehabilitation Counselors. Washington, D.C.: United States Department of Health, Education, and Welfare, 1968.

Ginsberg, E., Ginsburg, S.W., Axelrod, S., and Herma, J.L. Occupational Choice: An Approach To a General Theory. New York: Columbia University Press, 1951.

Gonyea, G.G. "Appropriateness of Vocational Choices As A Criterion of Counseling Outcome". Journal of Counseling Psychology, 1962, 9, 213-219.

Hammer, Edwin K. "Deaf-Blind Clients: A Behavioral Model of Rehabilitation Services". Deafness, 1973, Volume III, 15-29.

Holland, J.L., and Nichols, R.C. "The Development and Validation of An Indecision Scale: The Natural History of A Problem In Basic Research". Journal of Counseling Psychology, 1964, 11, 27-34.

Hulslander, S.C. "Aspects of Physical Growth and Evolution of Occupational Interest". Personnel and Guidance Journal, 1958, 36, 610-615.

Kopp, Harriet G. "Challenge To Education: The Multiply Disabled Deaf". Deafness, 1973, Volume III, 1-14.

Maslow, A.H. Motivation and Personality. New York: Harper and Row, 1954.

Osipow, S.H. Theories of Career Development. New York: Meredity, 1968.

Row, Anne. "Roe's Personality Theory of Career Choice". Theories of Career Development. New York: Meredity, 1968

Rogers, C.R. Client-Centered Therapy. Boston: Houghton Mifflin, 1951.

Rogers, C.R. On Becoming a Person. Boston: Houghton Mifflin, 1961.

Super, D.E. The Psychology of Careers. New York: Harper and Row, 1957.

Torrie, Carolyn, "Affective Reactions In Some Parents of Deaf-Blind Children". In A Paper Presented At The Southwest Regional Meeting Of The American Orthopsychiatric Association. Dallas: Callier Hearing and Speech Center, 1972.

PREVOCATIONAL SERVICES FOR DEAF-BLIND CHILDREN AND YOUTH

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Definition of Terms

The rehabilitation process has been defined as a process consisting of a planned, orderly sequence of services related to the total needs of the handicapped individual. Medical, social, and psychological services are necessary to accomplish the rehabilitation process.

Sankovsky (1972) stated that work adjustment may be viewed as a therapeutic process designed to enhance an individual's vocational potential of life capacities, providing information or new experiences and/or changing existing behavior. Sankovsky also indicated that "work adjustment can seldom be successful without appropriate and prior social and personal adjustment". These are the roles of a pre-vocational transitional program in the school setting.

Thus, pre-vocational services may be defined as the provision of personal adjustment opportunities, social adjustment activities, and work adjustment training in a planned, orderly sequence for children who have received the maximum benefits from the educational program and need to be prepared to enter a work oriented program.

Overlap of Services

Many educators feel that their role is to teach the child academic skills and that their responsibility ends there. At the same time, many people in rehabilitation feel that their role is exclusively confined to the area of vocational training. Many experiences reported from rehabilitation literature have demonstrated that the programming for the severely handicapped person cannot be divided into two separate components; that is, education and training. Rather, rehabilitation must maintain a close working relationship among all programs and services 1. IHB, 1958, 2. Switzer, 1967, 3. Savisaari, 1968, 4. Fine, 1969, 5. English, 1970, 6. Stewart, 1971.

Further indications of the reality of these problems is evident by the proliferation of workshops, work activity centers, extended employment centers, supervised living facilities and evaluation facilities being supported by state and federal monies through rehabilitation agencies.

Due to the overlap of educational and rehabilitation services to the severely handicapped deaf-blind individual, it is now time to examine the role of each service and perhaps to begin to delineate what may be done to expedite services to the severely impaired client. If pre-vocational *services, as defined above as those skill related activities which lead to, or enhance, social, personal, and work adjustment, are to lead to meaningful programming, these activities must begin in the schools. This means that before a deaf-blind child is expected to enter a vocational rehabilitation program, there are certain activities which should be available in each classroom program and which should help the deaf-blind youth in succeeding in a work situation after formal vocational training.*

Traditionally, pre-vocational activities have been in a rehabilitation setting. These have tended to be more product oriented than those activities which are defined as pre-vocational activities for the school or classroom setting. The educational program which provides pre-vocational activities, therefore, may be identified as a transitional program, that is, a time and program where there is a shift from academic priorities to vocational objectives.

Educators must be attuned to the needs of students and be aware of the long term goals for each child in their program. The criteria for transferring a child from the academic setting to pre-vocational activities, in the school setting, must be well established and understood by the teaching staff. This criteria should not be limited by the age of the child or by the behaviors which the child exhibits which may encourage his removal from the academic program.

The lack of communication between rehabilitation and education is a common awareness. Then serving the minimally impaired youth or adult, communication between these agencies is not critical. As the severity of impairment increases, there must be a proportionate increase in communication between educational and rehabilitation personnel. The results of this communication must be the establishment of common goals, agreement of methodologies to be used for instruction, mutual understanding of priorities of needs to be met, and pooling of all available resources from these and other agencies.

Education has the responsibility to rehabilitation in providing services that will enable the deaf-blind person to benefit from vocational services. That is, education is the logical setting for preparation of skills needed for entrance into rehabilitation programs.

Rehabilitation has the responsibility to educational settings to inform educators of the skills required for the deaf-blind student to enter training programs. Input into the development of educational activities by rehabilitation personnel is important to help establish appropriate educational goals and objectives.

These responsibilities must be met by personnel in both education and rehabilitation if services to deaf-blind persons are to be effective. It seems important to state again that no one agency or individual profession can provide all the services a deaf-blind person needs. All must work cooperatively if services are to succeed.

Study of Program Needs: 1973

Consensus data indicates that there are approximately 5,000 (0 to 21 years) known deaf-blind children in the United States. The development of educational services to these children has forced many changes in the provision of services: change in concepts of education, change in styles of teaching, revision of program format. This has meant questioning the role of the professional, the responsibility of school personnel to children, and the objectives of classroom activities. This reorientation has involved educators from the state level to local program personnel working as aides or volunteers. In most cases, this reorientation has not been easy to achieve. The reactions from personnel in the schools has been varied and has ranged from reactions of flight from the problem ("I'm getting out of here before I become too involved"), through reactions of fighting the problem ("They are not going to change my mind about educational procedures"), to denying the problem and resulting changes ("What do you mean 'deaf-blind' children?"), to learning to cope with the problem ("Deaf-blind children are first of all children and can benefit from coming to school. Now what do we do first").

As more of these children are referred to state rehabilitation agencies, the same types of reactions may be expected. The current situation facing agencies providing vocational services is similar to the situation faced by those in education five years ago. There are large numbers of deaf-blind youth nearing the age when vocational services are needed and few programs are currently providing services to this population. Fortunately, rehabilitation has time to better plan than the educators, if the time is well utilized. If comprehensive services to deaf-blind youths and adults is to develop, there needs to be identification of existing resources for training, there needs to be justification of the population to be serviced, there needs to be a listing of the problems involved in getting the client to the services, and there needs to be a measurement of the outcome of services so that programs may be corrected to remain effective.

In school year 1972-73, one child was accepted into the deaf-blind program at the Callier Center for Communication Disorders in Dallas. This young man was 17 years of age, had previously been rejected by a vocational training program because of his behavior, and needed further educational opportunities to learn language, mobility skills, and attending behaviors. This case study served as a pilot inquiry into the types of activities which the classroom could provide to prepare a deaf-blind person to enter a vocational training program.

In the fall of 1973, a planning team was developed to assess prevocational services which were currently available for deaf-blind children and youth. The team visited eight facilities across the country, five of which provided direct services to deaf-blind persons in vocational training as well as adjustment opportunities before training.

Prior to the site visits, a series of questions was developed by team members to relate to current services and which asked questions regarding procedures for entering vocational training programs, costs, referral channels, follow-up procedures and evaluation techniques. Eight categories were assessed by the team: referral system, criteria for admission, evaluation procedures, training techniques, medical assistance, placement procedures, follow-up methods, and costs. (Appendix A)

Through interviews and observations of programs, answers from the twenty-one questions, in the eight areas, provided data about the current services available in selected programs.

Preliminary results confirm the importance of self-help skills for deaf-blind persons seeking further training opportunities, the important need for deaf-blind persons to have communication skills which are usable, and the need for independent living skills so that further training may be possible. Without these types of skills, admission into existing programs may not be possible.

This data certainly points to some of the areas where educational programs need to concentrate efforts for pre-teenage deaf-blind children. The commencement of emphasis upon communication skills, activities of daily living, and independent living skills must begin as early as possible in the educational program and continue throughout the educational setting.

By 1980, it has been projected that there will be 242 deaf-blind persons of vocational training age (16 years and older), in Texas alone. How many of these children will be able to enter vocational training programs? How may the next few years be used for planning and implementing vocational services to this population?

Case Study of One Pilot Program

In the fall of 1973, a pilot program for pre-vocational training was established at Callier Center for Communication Disorders in Dallas to define the problems presented by the older deaf-blind children (10 years to 21 years) and to identify areas of services needed by this population. Service areas to be studied included staff, student ratio, staff development needs, facility and space requirements, developmental level required by the students for entrance, establishment of realistic expectation levels for students for completion of the program, and identification of skills required for entrance into more advanced training settings.

Indications from this program seem to point out the difficulty of staff persons to provide the wide range of services needed by the young adults who are deaf-blind in a day school setting. Further modification will be needed to ask for help from vocational rehabilitation personnel in orientation and mobility, communication skills, and work oriented activities. Family counseling will be needed so that appropriate support will be available to the client during the training phase. Staff training activities are critical if appropriate planning is to be available for the wide range of problems encountered when the deaf-blind youth begins pre-vocational training.

Problems Encountered

The experiences of the past two years have shown some important parts of the problem of developing pre-vocational services to deaf-blind youth. First of all, few facilities are currently serving deaf-blind clients on a routine basis at the local level. Even fewer facilities seem to be planning for the increase of deaf-blind clients which will begin to reach adolescence in the next three to five years. There is a need for exploration of a variety of settings to provide pre-vocational services to deaf-blind youth.

Staff training programs seem to be concentrating on the academic or pre-academic programming when there is an immediate need for personnel to work with older children needing pre-vocational services. Long range co-ordination between educational facilities and rehabilitation services seems to be slow in developing or lacking.

At the present time, there are eight regional pilot programs studying the pre-vocational needs of older deaf-blind children. These studies are being conducted within the Regional Centers for Services to Deaf-Blind Children and include forty-one states. Hopefully, by the end of the fiscal year, trends will be identified which will permit the best use of the time available because, for these children, time is of the essence.

THE CALLIER PROGRAM

Consultants

The pilot pre-vocational program is funded by the Texas Education Agency and received supportive services from the administrative staff of the Regional Center for Services to Deaf-Blind Children. These services consist of educational, social services and administrative consultations. Other consultative services to the program include the areas of ophthalmology, audiology, social services, occupational therapy, physical therapy, as well as the full range of services available through the Texas State Commission for the Blind.

The Classroom

There are five children from the Dallas area enrolled in the Callier Deaf-Blind Pre-Vocational Program. The age range is 11 to 16. These students have educational handicaps which include: blindness, visual and auditory perceptual disorders, speech anomalies, hearing impairments, behavior problems, expressive and receptive learning disabilities, and gross and fine motor developmental delays. Two are totally blind and two are totally deaf. None are totally deaf-blind. The classroom is staffed by two primary teachers and teaching assistants.

Curriculum

The pre-vocational program curriculum is a combination of individualized instruction projects. Some of these projects are academic, while others are oriented toward daily living skills, hobbies, crafts, cooking, and allied arts.

Pre-academic visual-motor skills consist of eye-hand coordination, eye-foot coordination, directionality, hand dominance, shape and tactile discrimination, and spatial relationships.

The communication skills system utilized within the program is based on the standardized sign system which has been adopted at the Texas School for the Deaf at Austin. The educational approach is total communication with emphasis on associative learning.

Academic training includes mathematical concepts such as: number sets, measurement and time intervals, and sequencing. These concepts are reinforced with abstract and concrete objects and related experiences to facilitate the associative process. Language and auditory training are also essential parts of these children's education. The Peabody language method is utilized and is supplemented with stories to aid the student in comprehension and recognition of sequential events.

Community field trips are planned monthly to increase self awareness as well as awareness of environment aside from the family setting. These trips allow community members an opportunity to observe the deaf-blind student and, hopefully, to dissolve some of the misconceptions which have been associated with this population.

Physical exercise is included in the teaching component. Specific exercises are planned in orderly sequence to meet the basic needs of the individual. Many are Yoga exercises. Stretching exercises are particularly helpful in relieving tension since all stretching is inherently tranquilizing.

Many children have become so emotionally repressed, constricted, and inhibited, they cannot profit by ordinary exercise and calisthenics. Attitudes of the body often effect the attitude of the mind.

Balancing exercise requires the student's complete attention. In time, the habit of concentration generally makes it easier to focus attention inside or outside oneself. It is expected this attention and concentration will carry over in classroom training.

As we work with children on various levels, all areas of our program can be checked for strengths and weaknesses. The results may be good or bad, but from this, we can look at what has happened in student services and modify to meet their needs.

References:

English, J., "Rehabilitation Project with Multiply Handicapped Deaf Adults". Proceedings: 1969 Convention of American Instructors for the Deaf. Berkeley; California School for the Deaf, 1969, 90-99.

Fine, S., Guidelines for the Employment of the Culturally Disadvantaged, Kalamazoo; W.E. Upjohn Institute for Employment Research, 1969.

Sankovsky, R., "Adjustment Services in Rehabilitation", Journal of Rehabilitation, 1971, 37 (4), 8-10.

Savisaari, R., "Compensating for Severe Under-Training". In G. Floyd (Ed.) International Research Seminar on the Vocational Rehabilitation of Deaf Persons. Washington, D.C.; 1968, 241-159.

Sussman, A., Counseling with Deaf People, Deafness Research Center, N.Y., University School of Education, N.Y. 1971.

Switzer, M., Williams, B., "Life Problems of Deaf People". Archives of Environmental Health, 1967, 15, 249-256.

Industrial Home for the Blind, Rehabilitation of Deaf-Blind Persons. Brooklyn 1, New York; Author, 1958.

AUDIOLOGICAL EVALUATIONS FOR DEAF-BLIND CHILDREN

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Introduction

It is in testing the hearing of the multiply-handicapped child that audiologists face one of the greatest challenges. The developmentally disabled child often displays problems which appear to involve auditory, motor, speech and language functions in such a manner that others have questioned the role of hearing in the child's disability, and the subtle and pervasive interactions of a combination of various handicapping conditions make it very difficult to determine accurately what the child's auditory capacities are.

Measurement of hearing by the pure tone and speech audiometer for an individual who communicates normally, and who has been able to follow directions, is a relatively uncomplicated task. In fact, one may question whether the skill of the audiologist should be used in much of this routine kind of testing that must be done in evaluating hearing loss. When a child without verbal language presents himself, however, and shows great difficulty in responding, we must apply all the knowledge and skills we have in differentiating between one who does not hear at the peripheral level, and one who may not hear at a central level, or for other complicated reasons. The problem confronting the audiologist, when he must evaluate the infant or very young child who has not acquired speech and language commensurate with his chronological age, is to determine those factors that are producing either the complete absence, or retardation, in language development. Once these factors are determined, the audiologist may refer the child to other appropriate specialists, including educational, and depending on whether the auditory problem is one that may require continuing audiologic monitoring, he may or may not be involved further to any great extent. In the case of the deaf-blind, he should indeed continue in an important role.

The Role of Audition in Acquiring Language

Audition plays such a pervasive role in the receiving and sending of information that one must consider the intactness of the auditory modality in the implementation of any educational program for any handicapped child. Our entire civilization is in fact highly dependent upon auditory transmission of information, and its importance in the education and habilitation of deaf-blind children cannot be overestimated. Furthermore, it is impossible to consider the development of audition in the growing child without relating it to his language behavior, which in itself is an enormously complex process encompassing a multitude of psychosensory abilities, internal symbolic processes, and motoric-vocal expression functions.

These abilities depend not only upon a reasonably intact peripheral mechanism, but also upon the proper functioning of central nervous system (CNS) mechanism which mediate the transmission, orderly integration and assimilation of stimuli in order to present accurate sensory-perceptual patterns to the higher symbolic centers.

We are lacking a comprehensive theory concerning auditory perceptual development, although important contributions in this area have been made recently by Friedlander (1970) and Eisenberg (1970). Friedlander emphasizes that issues related to infant listening and receptive processes have been virtually ignored in the proliferation of language studies throughout the sixties. There is general acknowledgement, however, that language input is a necessary prerequisite for the organization of speech. Despite this obvious truism, the development of auditory perception in general, and of language perception in particular, have been accorded relatively little time by researchers.

One perplexing phenomenon which plagues the erstwhile investigator studying auditory development is the fact that once the child begins to listen selectively and with meaningfulness, he has simultaneously learned to inhibit or 'tune out' those sounds which are non-meaningful. The mechanism of central and peripheral filtering that attenuates unwanted stimuli and exercises selective attention among multiple stimuli is a distinctive feature in studying the differences between auditory and visual receptors. For example, a baby can close his eyes to avoid looking, but he must invoke entirely different central nervous system mechanisms to tune out unwanted auditory inputs. Thus, separating significant language signals from irrelevant household and family noise in the infant's environment is undoubtedly a most difficult initial task for the immature auditory system in learning to listen to language effectively.

Eisenberg (1970) has demonstrated that human infants have the capacity right from birth to respond selectively to different auditory signals, although such differential signal recognition is relatively crude compared to the very refined acoustical discriminations which become possible later in their development. She has shown that the newborn infant can actively regulate auditory stimulus events around him, and thus we can dispose of the old notion that very young babies are simply passive recipients of outside stimuli. The child whose preverbal language in this early period is accepted by his parents as an outward manifestation of his need to become a communicating member of the family is indeed fortunate. That is to say, the child is reaching out to communicate with his family long before spoken language is developed. In turn, verbal language will be enhanced when the infant's preverbal attempts are needed and positively reinforced. Educators of deaf-blind children should capitalize on this principle in terms of its implications for parent involvement in the early education of their children. Early intervention programs which are directed toward the parents in the child's earliest years are an absolute necessity in making effective use of residual hearing levels in deaf-blind children. The normal sequence of auditory development thus becomes an important frame of reference for both the teacher and the parents in this early stage.

In the first weeks of life the child will respond reflexively to a variety of sounds, particularly those which are sudden and loud (McConnell et al., 1974). Hearing screening of the newborn, for example, is done at a period when the startle reflex is easily activated. The infant soon begins to listen selectively to his sound environment, and the reflexive responses become harder and harder to elicit as he develops in his ability to associate meaning with sound. It appears he first responds to moods and emotional values in the voices of those around him rather than to specific meanings of words. For example, the mother may talk to him in a soothing voice until she evokes his cooing and smiling behavior which reflects his state of well-being and content. This response furthermore denotes an auditory perception (association of meaning with a sound source) has developed. The infant acquires these auditory perceptions rapidly, greatly expanding his knowledge of his environment through the distance sense of hearing in this early period when he is still restricted to his crib or playpen.

By six months he has learned to move his eyes to locate sound and frequently to vocalize responses overtly to intonations in the voices of those around him. These vocalizations consist primarily of vowel sounds at this early stage combined with some of the more easily made consonant sounds such as /m/ and /b/. In the second six months speech sounds gradually acquire meaning, enabling him to associate meaning with single words often repeated. For example, he may recognize that 'mama' and 'milk' evoke familiar images and will begin to respond differentially to these and other common naming and action words. Ability to recognize single words at one year is followed by his learning to carry out simple instructions composed of three to four words, such as "get daddy's shoes", even though he would be far from able to produce this degree of complexity of syntax. At this period children are not responding to the separate words as much as to the total communicative context. They may recognize only one of the single words spoken separately, but they can respond to whole phrases and sentences appropriately even though they could not break these clusters down into their separate word and syllable components.

Between 18 months and two years, the child is able to enjoy nursery rhymes which are appealing because of their lilting auditory pattern even when he comprehends little of the meaning. The prosodic features of language are equal in importance to the semantic features at this point, and are imitated in the jargon stage at around 18 months when the child jabbers in imitation of the adult speech he hears. He will use similar kinds of inflection and rhythm patterns even though he may have only one or two intelligible words interspersed in his jabbering. It is not until the third year of life that we can expect him to follow simple stories in connected discourse through hearing alone; by the fourth year conversation with the child can be carried out in a give and take situation of daily living, even though his attention span may vary markedly depending on the message content. A knowledge of these expectations of what the normal youngster can do at these progressive stages is vital to our assessment techniques for the deviant child.

Assessment of Hearing

The deaf-blind child lacks normal functioning in the two sensory systems most vital to acquiring information about one's environment and to integrating himself into that environment in a meaningful manner. Both hearing and visual disorders are, however, like other handicapping conditions, on a continuum. Each condition can exist in degree ranging from mild to severe, along with varying degrees of disability in the intellectual area, motor coordination and ability, and personal-social development. Dysfunction in language can be expected in both verbal expression and auditory comprehension, which will later be reflected in difficulty in handling the read and written language tasks required in obtaining an education. It is thus very crucial that we evaluate as accurately as possible the hearing function in order to plan for the child's best possible opportunity to develop (McConnell, 1973).

One asks first: Does this child use hearing as a primary sense modality? If not, does he use it secondarily or not at all? Does he use sound inconsistently? Let us first consider the "deaf" child. Very few children are totally deaf, if by "total" we imply lack of hearing for any frequency at any intensity. Deaf children are generally consistent in a test situation and will give overt responses to sounds if made loud enough. Reports from parents will indicate that the child does seem to notice environmental sounds of high intensity, such as a car horn, a dropped dish, or a low-flying airplane. Noisemakers, particularly percussion sounds, will often evoke a startle response. Loud voice at one foot, if one is careful not to allow breath movement or other tactile clues, will frequently be heard when one uses strong vowel sounds as in "GO"! Eye movement, momentary cessation of activity, and turning toward the source as the sound breaks into the child's consciousness are the more classic modes of response. Important to remember is that deaf children usually do respond quite visibly to sounds above threshold.

The retarded child tends to be erratic in his response to sound and requires an intensity usually considerably greater than his threshold in order to elicit a response. Pure tones, which are meaningless abstractions at best, are highly inappropriate if not combined with more meaningful stimuli or play conditioning type situations. Depending upon the degree of retardation, lack of attention alone can be the main reason for lack of response to sound. Alertness on the part of the examiner is very important, for very subtle evidences of hearing will be given many times by these children, which will not be repeated on retrial. Those at the lowest levels of mentality will often not pay the slightest attention to sound stimuli of any kind. This absence of response may be shown to be a lack of attention and interest, however, for if one utilizes a faint rattling of a spoon against a plate, or some other sound associated with their physical needs, they will turn instantly toward the source. Children at somewhat higher mentality levels (ranging from 50 to 60 IQ) may respond to speech sounds, but must be conditioned with play techniques to respond to pure tones. Obtaining actual thresholds is usually difficult with slow learning children, however.

When the child with severe emotional disturbances has not learned to talk, his inattention to sound may lead others to consider him deaf. Parents of such children, however, will often say the child "sometimes seems to hear us". Pleasant sounds at low intensities are more apt to elicit response than sounds of high intensities, but many will not respond to sound, even at pain threshold levels. In other words, they tend to ignore all sensory stimuli. Under stress or when separated from their parents these children will sometimes produce speech such as "Yes" or "No". The ability to do this suggests they have probably been able to hear within normal limits in order to have learned to speak these isolated words. Generally, conversation will fail to stimulate these children auditorially.

The aphasoid, or severely perceptually-impaired child may also ignore all sounds except those with which he has learned to associate meaning. Usual sound stimuli produced by noisemakers may produce a response once or twice, but will quickly be ignored once the child is conditioned to the stimulus. Questioning parents to determine if there are any particular sounds to which the child will attend may yield effective results. I recall one post-

encephalitic child, severely involved, who responded to no noisemakers nor to test stimuli of any kind that we had tried. Further questioning of the parents revealed she would respond to two speech phrases -- "Give Daddy a kiss," and "Do you want a cookie". When these were spoken at a very low conversational level six feet behind her, she turned immediately and in response to "Give Daddy a kiss", ran to her father and did so. Both the aphasoid and the retarded child may be stimulated to produce vocalization by babbling ("buh-buh-buh") at very soft intensity levels near their ear. The emotionally disturbed child, on the contrary, will ignore such stimulations, as will the deaf.

Principles of Audiologic Management

It is not my purpose, however, to dwell on the techniques of testing multiple-handicapped children, inasmuch as I assume that this group is more interested in the meaning of the audiologist's findings and the role of the audiologist in the program of services for the deaf-blind child. The audiologist must interpret all auditory behavior against the total behavioral and the developmental background. Thus, complete history information, careful interviewing of the parents and careful observation of the child himself during the examination are necessary. One evaluation is a starting point only. An important principle which cannot be stressed enough is that the audiologic evaluation of the multiple-handicapped child must be on an ongoing basis. The difference between those children who achieve functional use of residual hearing and those who do not is crucially related to the quality and the periodicity of the audiologic report after a hearing aid has been recommended for such a child, which concludes with the statement, "Annual audiologic evaluation is recommended." Please be assured that "annual audiologic evaluation" will not do the job.

We have been involved in an early intervention program for hearing and language impaired children from birth through the preschool years the past eight years. In 1966 we initiated an active birth to three programs as a parent teaching component to lead into the preschool nursery and kindergarten years. We have good evidence now to support that frequent audiologic visits (measurement of the hearing with or without the hearing aid, continuing counseling on what the parents and teachers may expect from the child in the way of auditory functioning with and without his hearing aid, and also guidance on proper maintenance principles for the hearing aid to insure that the child is indeed receiving auditory signals) are vital. I will not dwell here on how many hearing impaired children sit in classrooms over the country wearing hearing aids through which no signals are being transmitted. The condition of hearing aids worn by children cannot be taken for granted as they will not tell you when the hearing aid is not working. It is essential that the teacher of the regular class, the teacher aide, and the parents all be involved in knowing how to check the hearing aid and seeing that it is indeed in proper working order.

A second principle equally important is that wearable hearing aid use be established at the earliest time possible, as soon as the hearing loss can be detected and determined. That can be as early as four to six months and is crucial for maximal exploitation of the residual hearing. I think it is very important that it be well before the child enters preschool. If at all possible, it should not be delayed beyond the end of the second year. It is my opinion based on empirical data that if the hearing aid is fitted before the child develops the independence that accompanies his becoming ambulatory, with the implications for then exploring his environment in a more active manner, he will better be able to accept the device as a part of his body, and thus, self-image concepts are more easily established. The longer he adapts to a world without sound or with only faint or distorted sound, the more difficult it is for him to re-orient himself to an auditory world. Thus, hearing aid use begun as late as four to five years of age is destined to produce frustrations and agonizings by parents and others who are hopefully watching the child for benefits from his hearing that seem never to occur.

In this connection, we have studied two groups of children from our program - one having had early intervention, parent teaching, and wearable hearing aids before age two compared with another group who did not have such programming until after age three. The median age at which hearing aid use was begun for the early intervention group was two years, while that for the late intervention group was four years.

The target experimental group included six children from among the first group enrolled in the parent-infant program. Each of these children began in the parent program and started wearable hearing aid use before age 3 (median age 2 years 3 months). The second group included five children for whom parent intervention had not been provided and for whom hearing aids had not been fitted until after age 3 (median age, 4 years). These children were enrolled in a self-contained class for hearing-impaired children, their level of language being inadequate for integration into regular classes. The parents of these subjects had not been involved in the formal parent instruction program at the home because of the age of the child when discovered, although preschool training had been available. A third group included six normal-hearing children enrolled in the same public school second grade classes in which the six early intervention children also participated with the added help of a resource teacher. The teachers of the regular classes were asked to select children for the third group whom they considered average achievers.

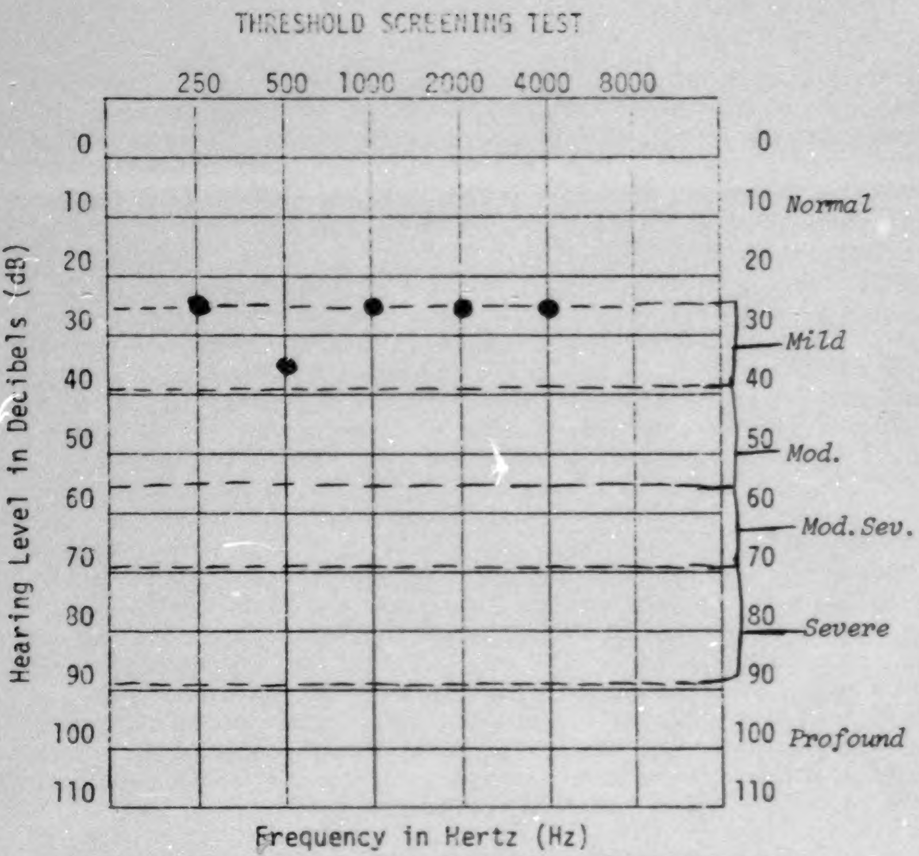
When the 50 consecutive utterances produced by the children in each of the above groups were analyzed according to Lee's Developmental Sentence Types, the findings revealed that the spoken language competence of the early intervention children was very similar to that of the normal-hearing group. The statistically significant differences in the study arose only from those comparisons of the late intervention group with either the early intervention or the normal-hearing group. For example, the early intervention group produced on the average 75 percent of their utterances at the sentence level, while the late intervention group produced only 32 percent at that level. The early intervention subjects produced only 8 percent noun-type utterances (an immature construction type) while the late intervention group produced 19 percent such utterances. Verbal-type utterances (a more mature construction type) occured 79 percent of the time in the "early" group compared with only 49 percent of the "late" group. In contrast, the normal-hearing group and the early-intervention group were not significantly different from one another in any comparison of type or level of utterance, while significant differences prevailed in almost all comparisons between the late intervention group and either the hearing-impaired children in the early intervention group or the normal-hearing group. It is important to point out here that the severity of hearing loss for the two hearing-impaired groups was not different, being at a median level of 87 dB for the early group and at 84 dB (actually slightly better) for the late group.

Thus, the examiner (Liff, 1973) concluded that the positive effects of the early intervention program, including the early use of hearing aids well before age 3, were reflected in the children's ability to express themselves in spoken language which, although not always as morphologically correct as that of their normal-hearing peers nor with as precise articulation, was highly comparable in syntactical structure. This same area of language competence was handled much less adequately by those children whose intervention program occured as much as two years later.

A third principle to which we adhere is that every young child should have the advantage of binaural hearing aids in order to simulate as closely as possible the type of auditory stimulation the hearing child receives. (Binaural (or two-eared hearing) means a separate hearing aid for each ear.) Again we have done some studies which show that children who have been consistently good binaural hearing aid users are significantly better listeners contrasted with a group of children who have been equally good monaural hearing aid users over the same period of time. Superior speech discrimination ability at a statistically significant level for the binaural users demonstrated they were able to take advantage of auditory clues under different difficult listening situations better than the children who were "raised," so to speak, on one-eared hearing, the monaural hearing aid.

I believe these principles, which have been established as critical to the progress of hearing impaired children, are extremely important in carrying over to the child who has the added handicap of visual impairment. The deaf-blind child, because he is affected in the two most critical sensory modalities for learning, presents us all with a responsibility to bring to bear our special skills onto the problem of helping him be as auditory as possible.

FIGURE 1



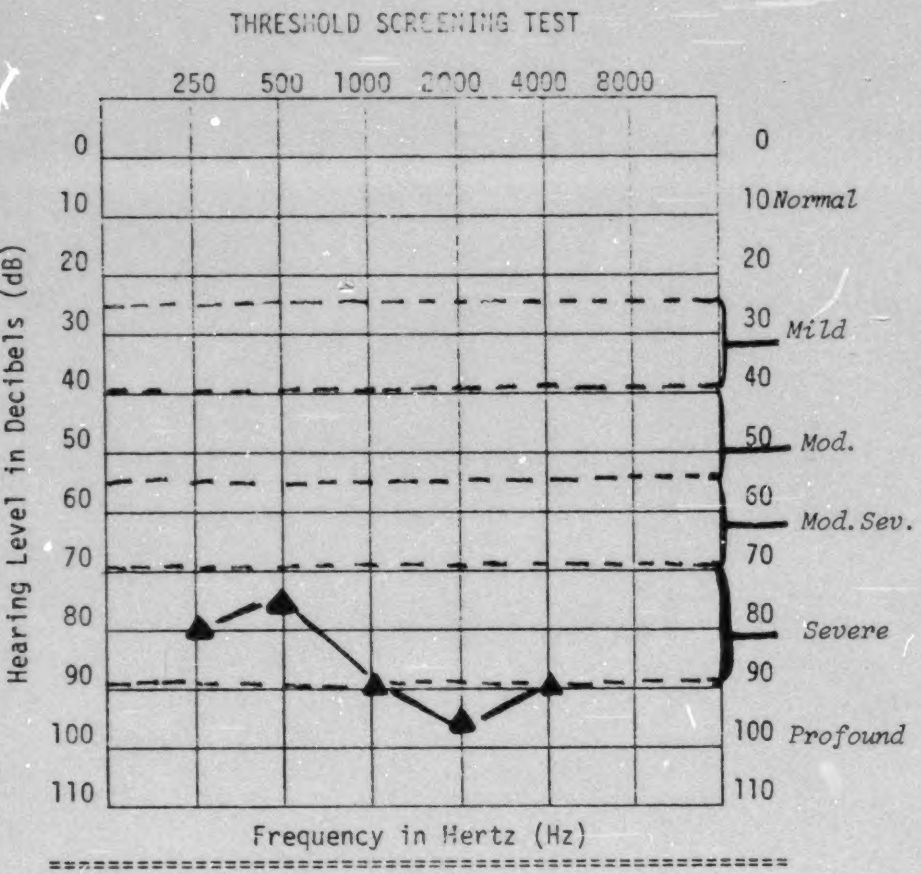
Rubella
Age 6-1
Day Pupil - Talladega
Hearing Aid Use - 2 1/
years
Does not like h/a
Turns off volume
Excellent adaptation to school

Surgery twice for glaucoma--Strabismus, cataracts
Sat alone 8 months - Walked 16 months
No speech - clicks tongue, hums, gestures

(Figure 1) shows the hearing level found for a child referred to us from the Regional Evaluation Center. (You will note that the audiogram is divided into levels of hearing in terms of severity, ranging from normal hearing limits at the top to profound hearing loss at the lower limits from 90 - 110 dB.) This child, as you see, was 6 years, one month at the time of the examination. He had been seen at two different Hearing and Speech Centers in the Southeastern Region prior to our seeing him. He was at that time enrolled in his first year at the Talladega School. He had been estimated at the age of 2 1/2 to have a severe to profound hearing loss as noted at the bottom and had been fitted with a strong gain hearing aid, which brought him a signal much too loud for his level of hearing. It turns out that his hearing loss is quite mild and hardly below normal limits. Wearing a strong hearing aid probably did more to distort auditory signals than it did to help him, and it was not surprising that he did not wear the hearing aid regularly. He resisted by turning the volume off. This is a rubella child, who had had complicating visual conditions including glaucoma, strabismus and cataracts. Surgery had left him a partially sighted child. Developmentally he was reasonably normal,

being only slightly delayed in age at walking and sitting alone. Nonetheless, he was a nonlanguage child, and was observed to click his tongue, hum and gesture for communication. The hearing loss is, however, not the reason for lack of development of language because his hearing level was definitely sufficient to enable him to hear the spoken voice. We are perhaps dealing here with an auditory perceptual impairment related to central nervous system functioning (not uncommon in the rubella population). Whether the incorrect diagnosis of profound loss at age two and the use of the stronger hearing aid may have contributed to his auditory perceptual impairment is a moot point. This child is not seriously retarded, even though he has not developed language. He was placed at the Talladega School last September, being at five the youngest day pupil there at that time. His parents had moved there to enter him in the school. His teachers reported that by Christmas he was settled down, his hyperactivity had decreased, and he was learning sign language. They believed he was more aware of sound in his environment, but he was still unable to imitate speech. The teachers remarked that he had been a "joy and challenge" to all of them. This child is very likely going to need to use the visual modality, even though limited, rather than the auditory modality despite the fact he has such a good level of hearing. Central auditory problems are manifestly more difficult to help with our traditional methods than is the peripheral. In fact, the traditional approach of putting the hearing aid on had not in fact worked with this boy. Improved quality of audiologic evaluation combined with more frequent assessments to study his auditory behavior in early life might have brought about a more accurate diagnosis, and thus have saved exposing him to the unnecessarily strong-gain hearing aid to which he could not adapt.

FIGURE 2

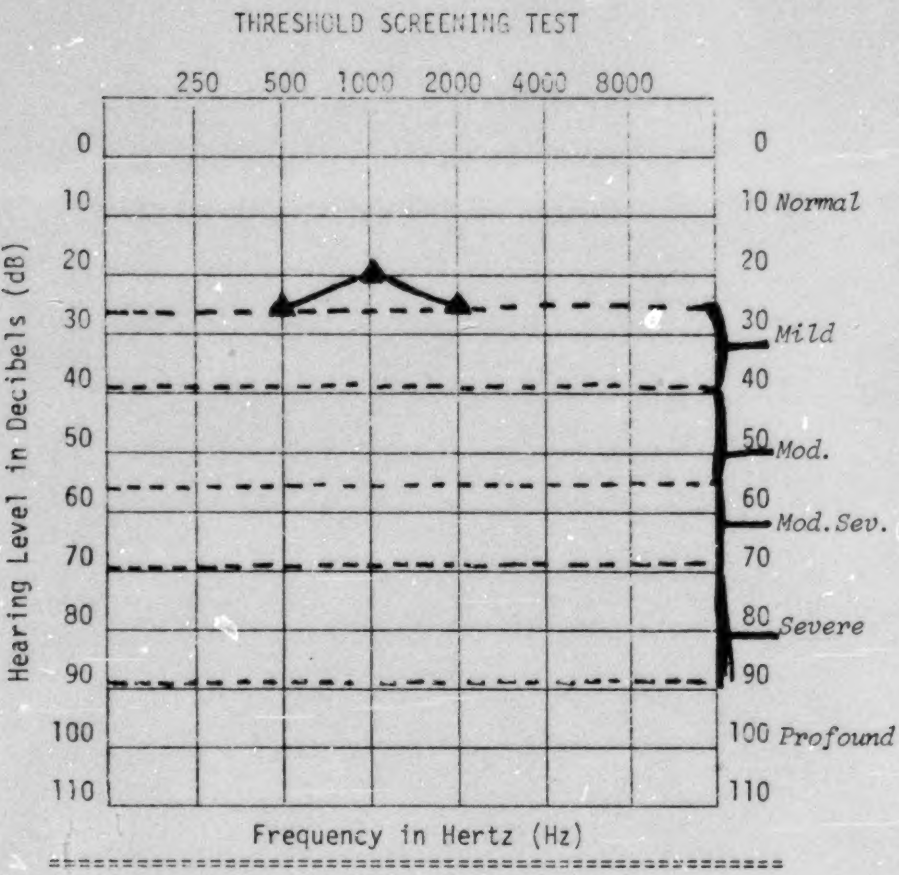


Rubella
Age 4-3
Cataracts - partial vision
Hearing aid since 3
Responsive to sound
In special preschool

Binaural ampl. recommended
Continue Special Program

The second child (Figure 2) has a severe hearing loss, but hears across the frequency range making it possible to give him aided hearing at around 30 dB, the level at which he responded to speech with his hearing aid. He had been in a special pre-school, and had worn a hearing aid since three. Intervention one to two years sooner would have enabled the development of much better language by the time we saw him at age 4 years, 3 months. Since he appeared generally responsive to sound and his aid, we recommended that he go to binaural amplification, a hearing aid in each ear, and that he continue in the special program. Although partially sighted, his hearing level and intelligence, are adequate to have resulted in spoken language considerably better than displayed at the time of test.

FIGURE 3

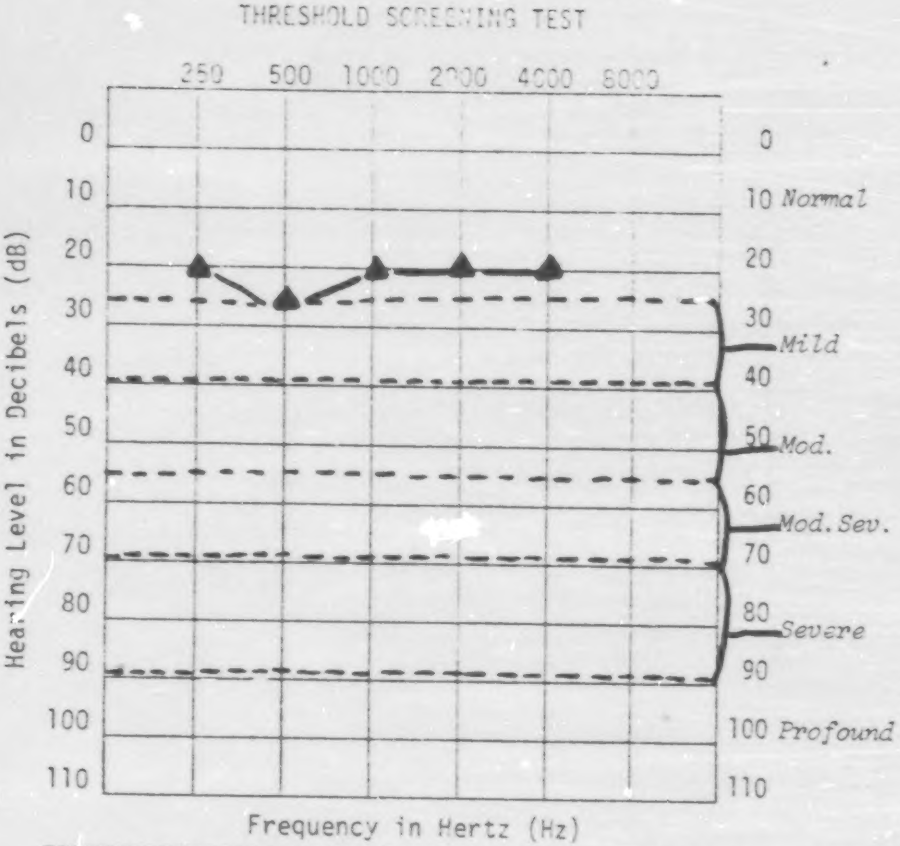


Rubella (?)
Cardiac
Virtually blind
Age 7-11
Undernourished Appearance
Developmentally retard
Walked 3-6
Residential Program fo
2 years.

Responds to voice, 15-20 dB - Both Ears
Music - 15-20 dB
Understands a few name words
Gestural Communication

The third child (Figure 3) (questionable rubella) evidences a syndrome of great complexity, which suggests that probably the mother did have rubella. She claimed to have been exposed but was not sure she had it. The child had a cardiac problem, was virtually blind, was seriously developmentally retarded, did not learn to walk until 3 1/2 years, was 7 years, 11 months when we saw her presenting a very undernourished appearance. She had been enrolled in a residential program for the retarded for the past two years. Again while this child had been considered deaf-blind at birth and had never had a diagnosis of normal hearing, it appears that her hearing is probably quite well within normal limits. She responded to voice at 15 - 20 dB in both ears and also in the sound field and had some vocalization and response to speech, but it was unintelligible. Her responses to sound were very infantile; she responded by cessation of a sucking behavior seen in younger children; she would develop a listening attitude with increasing volume seen in younger children; she understood only a few name words and used gestural communication. Here we have a child who is seriously affected in a number of areas including intellectual. Her lack of speech and language is not related to the hearing problem which is minimal or absent. Audiologic followup at this point is contraindicated, since her auditory problems are those relating to central nervous system function.

FIGURE 4



Premature - 3lb. 8oz.
Trauma - skull fracture at 3 months
Considered deaf and blind since
Knows name
Responds to "No"
Age 3-1
Performance Age 8-12 months

(Figure 4) is also a child that turns out to have normal or near normal hearing, although she had been considered deaf-blind. She was 3 years, 1 month at the time of evaluation. Etiology may have been related to premature birthweight, but also to skull fracture. A baby sitter employed by the family had beaten the child severely when she was three months old, resulting in skull fracture. She could respond to her name and "no", but her level of receptive language was perhaps at about 6 - 9 months; her performance age was about 8 - 12 months. This child is not deaf, although she had been diagnosed as deaf. She was still not walking at the time we saw her, but she could crawl and pull up to furniture. This "deaf-blind" child was thus mislabeled. Whether the educational program can be modified to strengthen and develop auditory perceptual skills is questionable but should be tried.

Summary

In conclusion, the audiologic evaluation of deaf-blind children requires us to exercise our clinical skills to the maximum in arriving at an assessment of the functional level at which he can be expected to perform. If the hearing loss is peripheral in origin, every effort must be expended in helping the child use his hearing through wearable amplification as a primary or secondary learning modality, dependent upon the nature of his accompanying visual defect. As with all hearing impaired children, very early detection and intervention are mandatory, to include intensive parent training in the years from birth to three before he enters more structured educational programs oriented toward the child. Continuing audiologic management to include counseling and guidance for both parents and teachers is essential. The aim should be to make the child as auditory in function as is humanly possible in view of the limitations in hearing which the evaluation determines to be present.

References

Eisenberg, R. B., "The organization of auditory behavior". J. Speech Hearing Res., 13, 453-471 (1970).

Friedlander, B. Z., "Receptive language development in infancy". Merrill-Palmer Quart. Behav. Dev., 16, 7-51 (1970).

McConnell, F., "Children with hearing disabilities". In L. M. Dunn (Ed.), Exceptional Children in the Schools, 2nd ed. N.Y.: Holt, Rinehart and Winston, Chapter 7, 351-412 (1973).

McConnell, F., Love, R., and Clark, B., "Language remediation in children". In S. Dickson (Ed.), Communication Disorders: Remedial Principles and Practices. Glenview, Ill.: Scott, Foresman, Chapter 2, 50-103 (1974).

Liff, S. "Early intervention and language development in hearing impaired children". Unpublished Master's thesis, Vanderbilt University, (1973).

VISUAL EVALUATIONS OF DEAF-BLIND CHILDREN

Ferne R. Roberts

Evaluation of the status of the eyes and vision is equally important for eye specialists and for parents and professionals who provide learning experiences for children who are visually handicapped. In the broadest terms, effective nurturing of the child depends on accurate assessment of eye structure and physiology and of functional vision. For the ophthalmologist, precise diagnosis of the eye's structural anomalies, physiological deviations or disease processes is essential to all medical intervention. There cannot be any guesswork about surgical, drug or corrective treatments. Thorough knowledge of eye structure, physiology and disease, as well as of other diseases and syndromes which affect the eye or are reflected in it, is the focus of ophthalmological training and practice. Exactness is the goal.

For the optometrist, precise diagnosis of structural deviations which create refractive errors, muscular imbalance and poor visual efficiency is essential to prescribing spectacles or low vision aids. Again, exactness is the goal.

Both ophthalmologists and optometrists are, in addition, called upon to measure or estimate and report distance and, less often, near visual acuity as a basis for establishing eligibility for services. Regional Deaf-Blind Centers, Library of Congress, American Printing House for the Blind, Schools and State Commissions for the Blind and Visually Handicapped all require verification of visual status by eye specialists before service is provided. Unfortunately, in almost all cases measurements of distance visual acuity and/or degree of field restriction are the criteria for eligibility for services. The definition of legal blindness which includes the words, "central visual acuity of 20/200 or less in the better eye, with correcting glasses" was established in the 1930's by the Social Security Administration. This is not a useful definition for planning for services for adults, much less visually handicapped children. However, there has been only limited pressure to include measurement of near visual acuity or assessment of visual function and efficiency in eye specialists' reports which influence service decisions.

Those who work with young visually handicapped children are well aware that the name of an eye disease or anomaly and a measure of distance visual acuity are vital parts of a child's cumulative file but they are equally aware that this information alone is grossly inadequate as a basis for educational planning. At the very least, an estimate of near visual acuity, and a narrative description of the effects of an eye disease or anomaly and of the effects of prescribed treatments should be included in the reports of eye specialists. The fact that they are seldom included is more the fault of the users of so-called "eye reports" than of the eye specialists who produce them.

For a century, ophthalmologists were relied on to examine and treat the eyes *and* *to make recommendations regarding school placements and procedures. Parents and educators minimized their own ability to make useful observations about a child's use of vision and instead took great care to follow medical recommendations about educational procedures. So long as it was believed that residual vision must be protected by limited use, it was entirely proper for educators to "take the doctor's word for it" -- to carefully follow instructions. However, when in this century ophthalmologists became convinced that restricted use of residual vision was not only not necessary but was also stultifying, the door was open for assessment of visual* *functioning* *by non-medical personnel. But the habit is hard to kick! It is easier to ask the doctor than to develop the skills required to assess visual functioning as a basis for educational placement and planning. And strangely enough, as the field of education moves toward greater responsibility for evaluation of visual function, it has only fitfully requested eye specialists to report their most useful information--near visual acuity and narrative description of effects of eye conditions. Having so long unquestioningly followed medical recommendations regarding school placement and mode of reading, professional educators still tend to passively accept minimal information. The taboo against asking questions or letting the eye specialists know that further information is needed is very hard to overcome. Even more difficult to eradicate is the teachers' conviction that their own assessments of visual functioning are somehow inferior to the more exact measurements made by eye specialists.*

As Eleanor Faye (1970, p. 142), a noted ophthalmologist, says "Observation of the functional vision of a child is more important than the acuity. It is not possible to measure it and put down a number. It consists of observing the child in all his activities: in mobility, in visual activities, and in interest (how much a child uses visual clues). Can he join in sports, see the ball, the jumprope etc.? Does the child follow with his eyes? Does he ever comment on color or dress? Does he stop to inspect the bulletin board, maps or globes--is visual curiosity automatic or does the child have to be reminded to look?"

While our assessment of the functional vision of a deaf-blind child is not indeed expressed in numbers or medical terms, it is as essential a component of educational planning as a diagnosis is for medical intervention. Unless we are quite specific about the ways in which a child sees and looks and the conditions which improve or decrease visual efficiency, we are teaching by trial and error. And that is contrary to our fervent wish to waste as little of each child's learning opportunity as possible.

We must know how well the child responds to visual tasks in bright and dim light, at various distances from visual stimuli. We must know how the child reacts to colors or shades of gray, to subtle and gross variations in size and contour and to familiar and unfamiliar sights; and how well he learns when visual and auditory or visual and tactile stimuli are presented together; and whether his visual attention is best when he looks at concrete objects, representations (pictures) or at symbols (words and numbers); whether he imitates gestures or must be guided through visual-kinesthetic activities.

These and other conditions of seeing are necessarily assessed by parents, *teachers, and aides who see the deaf-blind child many hours each day in many activities. Without these assessments of visual functioning, it is patently impossible to plan learning experiences, select instructional materials, specify teaching strategies or evaluate learning outcomes. It is just as impossible for a teacher to* ***teach*** *without visual function information as it is for a surgeon to operate without an accurate diagnosis. The surgeon's failures are undoubtedly more dramatic and there may be no second chances. But the fact that our criteria for success or failure are not as exacting as those of a surgeon should not allow us an excuse for poorly designed learning experiences.*

Types of Evaluations

Complete visual evaluation of deaf-blind children depends on two types of evaluations: First, original diagnosis and periodic examinations of the structure and physiology of the eye and measurement of visual acuity by eye specialists. Second, on-going assessment of visual function in the child's own environment by parents, teachers and aides.

The first type, periodic evaluation by an eye specialist, generally takes place in an office or clinic under controlled lighting conditions, with restricted movement by the child, with an imperative that the child attend and respond by gesture or work and within a limited examination period. Various pieces of equipment are at hand. They were designed to give the examiner very precise and objective information about the eye and optic nerve and about the physiological processes within the eye. Questions which the specialist may ask himself are: How much does this child see in spite of disease or anomaly? How well do his two eyes work together to produce fusion and binocular vision? Does he see color? Are there refractive errors which can be corrected with lenses? Does the child experience discomfort or pain because of an eye condition? Does the condition of the eyes reflect other health problems? Are drugs or surgery to be prescribed?

While the concerns of the ophthalmologist and the optometrist overlap to a degree, the primary difference in responsibility lies in the area of diagnosis and treatment of eye conditions which require medical or surgical intervention. The ophthalmologist is a physician who specializes in care and treatment of the eyes. The optometrist is a specialist in diagnosis and correction of refractive errors such as myopia, hyperopia and astigmatism and non-surgical correction of muscle imbalance (Strabismus). Literally, opto-eye metrist-measure. He may also be concerned with certain visual perceptual problems. Both are qualified to prescribe lenses to correct refractive errors and both may be interested in low vision aids though there seems to be a somewhat greater number of optometrists than ophthalmologists involved in low vision services. While there have been feuds between the two groups in the past, we seem now to be in a period of equilibrium in which each specialty is respected for its role and roles are quite clearly defined. In many parts of the country both may legally sign eye reports required by service agencies.

The second type of visual evaluation, on-going assessment of visual function in the child's own environment, is concerned with how the child uses vision for everyday activities in his own home, neighborhood, school or institution. The parents, teachers and aides who make this type of evaluation are at a distinct disadvantage because they do not have years of training, the sophisticated equipment nor the codified measurement system that enable the eye specialist to gather objective information.

At this point it is important to define quite precisely the terms that are commonly used in discussion of visual functioning. Barraga (in Lowenfeld, 1973, p. 122) defines visual acuity as a measure of "reception of visual stimuli by foveal cells connected directly to the visual receptors in the occipital cortex". She defines visual perception as the combination of "neurological factors involved in processing and meaningful interpretation of all messages received through the visual sense".

Visual efficiency is defined as "effective control of the optical mechanism, speed and filtering abilities of the transmitting channels and the strength and parity of processing capacities".

The concept of visual efficiency is such an essential component of an assessment of visual function that elaboration of the definition is required. Gesell et al (1950) concluded that visual functioning is both an act and a process characterized by an orderly sequence of development. Fixation is the first step in the developmental sequence and it continues as a basic visual function. Focus, fusion and unification follow fixation as development continues. These functions continue their attempted growth even when physical difficulties intervene. Thus Gesell believed that experience and training might improve visual effectiveness and efficiency. Faye (1970, p. 137) states that "even if acuity is poor, the brain receives visual impressions and combines visual, auditory and other sensory information".

In summary, visual efficiency may be increased--the more the child "looks" the more he stimulates the eye and pathways to the brain. As the brain receives more and more information, assimilation occurs--impressions are compared, contrasted and evaluated. As the child matures, accommodation also occurs--present information is compared with previous experience and sensations are matched, evaluated and integrated (Hammer, 1972).

Visual acuity, visual perception, visual efficiency--together they determine visual functioning. Although eye specialists give us measurements of visual acuity and psychologists, neurologists or Learning Disability specialists may give us clues about visual perceptual processes, parents and educators are still left with the lion's share of responsibility for assessing visual function. And visual function is a crucial factor in how and what the deaf-blind child learns.

First, let us review some of the factors that get in the way of our achieving useful assessments of visual functioning. Then we can look at the techniques and tools which may help us.

Problems:

1. The training of teachers and other education personnel may not have enabled them to develop skills as observers and recorders of child behaviors.
2. In general, the training of teachers and the school experiences of parents lead to a focus on the outcomes of experiences or lessons rather than on the ways the child learns and the ways he may be helped to increase sensory functioning. To illustrate this by being absurd, traditional school report cards do not include an academic area called visual efficiency nor can a child get an "excellent" for deportment because he is very good at "looking". We tend to view the results of efficient or inefficient "looking" as successes or failures in physical, psychosocial, language or cognitive development.
3. Out of training and habit, parents and teachers may say that a child has or does not have a certain behavior or skill without adequate regard to the various circumstances under which the child operates. To oversimplify

this point, we may say that a child can climb stairs alternating feet on successive treads because he does this on stairs at home or school. But a stranger who sees the same child outdoors in very bright sunlight, on steps with very unequal risers and treads or on stairs without handrails, might report that the child still crawls up stairs! The visual, kinesthetic, tactual and perhaps auditory conditions are different and the child's behavior has changed.

4. Early diagnosis of visual problems may dispose eye specialists, parents and teachers to minimize visual assessment and stimulation. The difficulty of estimating visual acuity of infants and the reduced visual responsiveness of ill or multiply handicapped children often lead to assumptions that there is little useful residual vision. Lack of visual experience and the concomitant reduction of assimilation and accomodation of visual impressions perpetuate the probability that assessment of visual function will be neglected.

5. In all aspects of evaluation of performance and/or verbal intelligence of visually handicapped children and adults, we tend to rely on auditory stimuli and responses. We operate (Chase, 1972) with visual handicapped people in a sighted evaluation model and look to verbal behaviors as evidence that results are congruent with those of evaluations of people with 20/20 vision. This tendency has two obvious pitfalls for teachers who wish to assess visual function of deaf-blind children: First, the children may not be able to receive auditory stimuli nor to give a verbal response. Second, there is often great disparity between verbal responses and basic understanding of concepts.

6. We tend to be discouraged because we do not have a few neat words or numbers to record or transmit information about visual function. Anecdotal observations, check-lists and behavior sample techniques produce lengthier reports than those required to convey information about visual acuity measurements. The medical terminology and model appear more scientific and efficient.

7. Probably the greatest deterrent to systematic assessment of visual functioning is the difficulty of isolating purely visual activity from the effects of cognitive, psycho-social or other sensory function. For example if a child fails to reproduce a square at age six, the question of whether he can see the model is only one of several explorations. Motor coordination, motivation, past experience with pencil and paper and understanding of the task may all be as related to the failure as are visual acuity, perception or efficiency.

8. Since effective assessment of visual function is continuous, the types of observations and formats for recording findings must be easy to use and easy to interpret. A few aspects of visual function may be determined in an initial assessment. Reactions to bright or dim light or characteristic way of holding head or objects to attain sharpest focus may not change over long periods. But almost all other visual behaviors may change with experience and sensory training and we need ways to record these changes.

How can we resolve these problems? They are not easily dealt with. If they were, this would not have been a topic at this workshop and there would be widely available formats and techniques at your fingertips. This is not to say that we must start from absolute scratch, but we do have to select, learn to use, modify and generate tools and techniques.

For a moment let us consider the characteristics of evaluation settings and the home/school settings in which the eyes, vision and visual function are assessed. The method and materials which are used in an evaluation setting may differ from those used in on-going assessment in home or school environment. Or the same materials may be used in different ways. At any rate, the primary distinction between evaluation setting versus home/school assessment of visual function lies in control of variables. In an evaluation setting, whether it is the eye specialist's office, the psychologist's office or the neurologist's examining room there is a predetermined procedure, an established list of check-points, standard terminology and a controlled environment. In addition to the formal evaluation carried out under controlled circumstances, these specialists may also make informal observations or use related activities to estimate level of visual function. For example, a psychologist might use formal or informal assessment of visual function to determine whether a visual task in a subsequent test will be feasible for a child. Both the Gesell Developmental Schedules and the Bayley Infant Development Scale have items which can be used for quick gross assessment of visual responses in young or low-functioning children. For older children the Flash-Card Vision Test For Children (New York Association for the Blind, 1966) will give an approximate idea of the size of print symbols to which a child responds. Or the Visual Efficiency Scale (Barraga, 1970) may be administered and the profile cross-checked with items or tasks in a standardized intelligence, achievement, social or personality test.

In the home/school setting, assessment of visual function is usually carried out under less controlled conditions. First, because the methods and techniques are so far less standardized. Second, because the objective of the assessment is determination of the child's functioning with visual tasks in the everyday environment. However, there is obvious necessity for organizing tools and procedures for assessments in less controlled environments. It cannot be assumed that informal methods must be used in informal settings. Rather, the tools and techniques may need to be very specific in order to assure useful observations in informal settings.

Fortunately, in the last five years there has been a great increase in the quality and quantity of materials and models which are useful to those who are concerned with assessment of visual functioning. These, combined with some of the old stand-bys can nourish strong steps toward more systematic assessment of visual functioning and use of the findings to design instruction.

Some of the most useful resources are those which give guidance for establishing systematic behavior observation programs. One of the stand-bys is Almy's (1959) Ways of Studying Children. The greatest contribution of this book is the clarity with which the anecdotal record is explained and illustrated. The ability to write good anecdotal records provides the basis for the development of other skills essential to assessing children, designing instruction and evaluating instructional outcomes. One of those other essential skills, the one required to make anecdotal records readily useful, is the ability to code the observation information. Valentin

Dimitriev, University of Washington in Seattle, has developed a relatively simple but highly useful coding system. After the anecdotal record is written, the information is excerpted and put in three columns: antecedent event, behavioral response and consequent social event. Each sheet has spaces for child's and observer's name and the time and date. These sheets make extremely useful, easily read records. As an example, if a new teacher were given coded records which listed an antecedent event "Mother put a large (two inches) and a small (one inch) toy car on table and made sign for big", a behavior "John looked at the cars, shifting gaze back and forth between them" and a consequent activity, "picked up big car", she/he would almost at a glance know several things about John's visual functioning. He fixates on and examines concrete objects of one to two inches' length, he can visually differentiate size differences between two quite disparate sized objects and he can see signs for words he has been taught. If a subsequent record for John has an antecedent event "Mother put black and white outline drawings of cars (one, two inches long and one, one inch long) and made the sign for little" and recorded his failure to pick up the small picture, the parameters for additional assessment and for instruction have been clearly set.

There are two recent publications which offer very specific guidelines for formulating plans for systematic observations. Establishing a Behavior Observation System (Della-Piana, 1971) is a programmed booklet which includes practice sheets for the completion of tally, duration and interval observations, graphs and charts. Part of the self-instruction includes practice in identifying and describing the specific child behavior the teacher needs more information about. The child's visual behavior can easily be used in the practice exercises. A tally record is simply a count of how often a behavior occurs in a given time period; a duration record shows the amount of time a child spends in a specific behavior in a given time period and an interval record shows the percentage of intervals (i.e. 15 seconds) in which a behavior occurs in a given time period. A simple example of the use of one of these methods, a duration record, shows the wide range of information to be gained. A duration record indicates that during one half hour period John spent ten minutes at the activities which were included in the predetermined target behavior. That target behavior was "John visually examines objects in the play area by moving himself or the object within two feet or less of his face." One of the conditions for the observation was that it be made during free play. The record also indicated that the total of ten minutes was made up of three periods in which he examined objects for two minutes' duration. Even from this one observation the teacher knows that John visually examines objects without prompting. Several observations will enable the teacher to make a graph which can be compared with later graphs after the teacher has carried out instruction designed to increase John's visual examinations during free play.

The second, Developing Observation Skills (Cartwright, 1974), includes chapters on necessity of observation; methods of observing and record keeping; behavior tallying and charting; checklists, participation charts and rating scales; anecdotal records and observing instructional environments and teaching behavior. Specific guidelines and examples are also included.

In addition to the resource materials relating to systematic observation of children, there are materials which are useful to the solution of other problems related to assessment of visual functioning. But first we *must know what we want. Perhaps the most pressing questions are, first, what do we need to know about the child's functional vision and second, approximately where in the continuum of visual growth and development does the child operate? Until we can specify what it is that we must know in order to set goals and design learning experiences for deaf-blind children, no amount of observation or assessment will be meaningful. What each of you must know varies with the visual tasks inherent in your program content and philosophy. Similarly, until we can pin-point the approximate developmental level of a child's visual function, it is impossible to design learning activities which are congruent with his present learning abilities.*

Each teacher or group of educational personnel in a program must, to some extent, set up a unique check-list of visual behaviors which are relevant to that particular program. Every visual environment is different and every parent or teacher uses certain materials and techniques which pose unique visual problems.

There are, however, several resources which may provide guidelines for compilation of individualized check-lists or which may be simply adapted to other programs. Perhaps the one which is best known to you is An Educational Program for Multiply Handicapped Children (East San Gabriel Valley School, 1972). The East San Gabriel Valley Project focuses on five goals, including one on perceptual abilities. A sub-section relates to "attending, discriminating and responding to visual stimuli". Visual responses which roughly correspond to seven age levels between birth and age four are described. It is possible to select the visual response which best describes a child in your program. The next highest level or response, in effect, becomes the goal for the child. Essential steps between present function and the next highest level can be outlined as the basis for instruction. The project manual also includes some visual training activities. Both the East San Gabriel Valley School and the Area Center for Services to Deaf-Blind Children at the Callier Hearing and Speech Center, are in process of adding additional age-level performance criteria.

Several years ago the Learning Diagnostic Clinic, Childrens' Hospital of Washington, D.C., developed an informal scale, What Works. The teacher uses a scale to rate the response of a child to several sensory and motor stimuli. Major categories are: How Do You Get His Attention? How Does He Learn? What Reinforcement Works? The rating scale goes from 1, Always Ineffective to 5, Always Effective. Subsections include observation of ways which are used by the teacher to get the child's visual attention, of ways in which the child responds to visual stimuli and to combined auditory and visual stimuli. The interesting aspect of this scale is its focus on teacher activities which may have become habitual even though they remain ineffective.

None of these resources is likely to be exactly what any one of us is looking for but they do serve as bases or catalysts for the development of systems for our observations of visual function. Nor is any one of us apt to develop a scale or checklist which remains entirely satisfactory. We keep changing visual tasks and environments and we become more sophisticated in our understanding of visual functioning. These understandings come from the fields of medicine, psychology and education and from our own knowledge of child development. A recent article in Scientific American (Kagan, 1972) is a case in point. We know that stimuli which attract young infants are *moving objects, sharp contours and strong light-dark contrasts. The rate of change of stimuli is also important. Rapid change may produce startle reaction while the same changes at slower rates may be interesting or acceptable. In recent studies conducted at Harvard University and reported in an article titled "Do Infants Think?" there are indications that infants begin to acquire mental representations of events as early as the second month. It appears that infants pay more attention to stimuli that differ moderately from those they usually encounter. As an example, children of 7-12 months were shown an orange cube on six or seven occasions. When they were then shown a smaller orange cube, they attended to it for extensive periods and vocalized extensively. However, when shown a yellow rippled cylinder, there was limited attention and vocalization. The discrepancy principle: Events that are moderately different from the infant's schema elicit longer spans of attention than either totally familiar or totally novel events.*

In another visual discrepancy study cited, four month old infants responded similarly. This study involved measuring the amount of attention (eye fixation) given to an arrangement of geometrical objects. After baseline measurements were made in the laboratory, the infants were returned home with mobiles which were to be hung over their cribs for thirty minutes each day. Some of the infants had mobiles which were identical to the arrangements they had seen in the laboratory; others had mobiles which were slightly, moderately and extremely different and a control group had no mobiles. At the end of three weeks, changes in attention to the original mobile were measured. There was no change in attention to the original mobile for those infants who had not had a mobile at home. The smallest drop in attention was found among the infants whose home mobiles were moderately discrepant; the greatest drop in attention was found among children who had identical or quite similar mobiles. Extreme discrepancy also showed significant drops in attention.

While we cannot equate the experiences and expected behavior of normal infants and older preschool multiply handicapped children, these findings may have significance to those of us who are interested in the developmental aspects of vision.

In summary, it is essential to emphasize that there are some helpful techniques and resources available but that assessment of functional vision is still a pioneering activity. Neither the techniques nor the precise terminology available to eye specialists to assess visual acuity are available to educators. Visual assessment carried out in one environment may not be entirely useful in the next. And it is difficult to dissociate visual functioning from cognitive, psycho-social and motor function. (If a child cannot reproduce a circle, it may be because he cannot see it, cannot wield a pencil, has not reached that level of intellectual development, is not sufficiently interested in complying with the request or, indeed that he does not understand the request.) Assessment of visual functioning is a rather formidable task! But if more efficient use of vision can be learned, it must be taught. And if it is to be taught, we must know present function and the next highest developmental level.

BIBLIOGRAPHY

Almy, M. Ways of Studying Children. New York: Teachers College, Columbia University, 1959.

Barraga, N., Increased Visual Behavior in Low Vision Children. New York: American Foundation for the Blind, 1964.

Cartwright, C.A. & Cartwright, G.P. Developing Observation Skills. New York: McGraw-Hill, 1974.

Chase, J.B. "Evaluation of Blind and Severely Visually Impaired Persons". Science and Blindness: Retrospective and Prospective. New York: American Foundation for the Blind, 1972, p. 53-66.

Childrens' Hospital of Washington, D.C. What Works. Washington, D.C.: Learning Diagnostic Clinic, Childrens' Hospital of Washington, D.C. 1970.

Della-Piana, G. Establishing a Behavior Observation System. Salt Lake City: Bureau of Educational Research, University of Utah, 1971.

East San Gabriel Valley School. An Educational Program for Multi-Handicapped Children. Glendora, California: East San Gabriel Valley School, 1972.

Faye, E. The Low Vision Patient. New York: Grune & Stratton, 1970.

Fonda, G. Management of the Patient With Subnormal Vision. St. Louis: C.V. Mosby Co., 1965.

Freedman, D.A. "Congenital and Perinatal Sensory Deprivation: Some Studies in Early Development". American Journal of Psychiatry, 127:11, May, 1971.

Gesell, A., & Ilg, F. & Bullis, G. Vision - Its Development in Infant and Child. New York: Harper Bros., 1950.

Hammer, E.K. "What We Know About Deaf-Blind Children and Early Development". Paper presented at the 50th Annual Convention, CEC, Washington, D.C., March, 1972.

Kagan, J. "Do Infants Think?". Scientific American, March, 1972.

Lowenfeld, B. The Visually Handicapped Child in School. New York: John Day, 1973.

Myers, P.I. & Hammill, D.D. Methods for Learning Disorders. New York: John Wiley And Sons, 1969.

New York Association for the Blind. A Flash-Card Vision Test for Children. New York: N.Y. Association for the Blind, 1966.

Roberts, F.K. "The Educator's Assessment of Visual Functioning". Speech presented at Southwestern Regional Deaf-Blind Center, 1972.

Silberman, R.K. A Comparison of Selected Aspects of Visual Functioning in Deaf and Hearing Children. Unpublished dissertation, Teachers College, Columbia University, 1971.

CLASSROOM TECHNIQUES FOR THE EVALUATION OF FUNCTIONAL VISION

Dr. Marvin Efron

Classroom teachers have unique potential for evaluation as well as for the teaching of deaf-blind children, from a functional vision point of view. One of the major purposes for evaluation by teachers is to assist them in planning curriculum. It is better to have the child function on a level on which he can succeed, but not to make the materials so easy for him that he loses interest or make it so difficult that he becomes frustrated and does not try any longer.

But determining the level of instruction is not an easy task. Developmental scales have been used; they start off with tasks that are very simple, becoming more and more complex until they get to very difficult patterns. The student progresses along the scale until he stops succeeding. This is the point where the teacher must try to determine the instruction point. The student must be taught at a level at the top of his success point, that is, where he is succeeding but is pushing himself in order to do so.

There is no cookbook method for every student, because each deaf-blind child is an individual and each responds differently, therefore, the teacher must know to what extent a student responds, what motivates him to make these responses more readily, and the type of material to use. A qualified teacher is the best person to do this type of evaluation, because she knows the child and the child knows her. The surroundings are familiar to the child; the teacher knows what is his usual behavior versus what is abnormal behavior for that particular day. We do find that many of these children do not have consistent behavior day in and day out and the teacher can experiment with different types of instructional materials and techniques. A deaf-blind child, as stated previously, is an individual; what works on one does not necessarily work on another. To a large extent, teaching him is a trial and error situation. The low functioning deaf-blind child is not an adaptable child, that is, he can not adapt to new types of communication or new types of learning as easily as a normal child. Therefore, it is easier for the teacher to adapt to his level. This should be taken into consideration in all evaluation procedures and in all teaching procedures with the deaf-blind child.

Professional eye examinations certainly give the teacher a lot of information and help. It should be remembered that in the traditional professional evaluations a child is taken from his familiar environment in which he is comfortable to a strange office with strange surroundings and strange personnel. We cannot expect a child who is handicapped to give his usual responses under these circumstances.

There are three areas of vision a teacher must take into consideration *in evaluating her low functioning deaf-blind child. This presentation is primarily aimed toward the low functioning child. Although many of these techniques are applicable for the higher functioning, I am aiming primarily for the low functioning child in this presentation.*

The first area of vision has to do with sensation. This primarily is whether the child is seeing anything--is anything registering on his retina? We generally break sensation down into discrimination, recognition, and interpretation. In evaluating these skills, a teacher should be in the environment the student usually is in. The teacher should utilize materials that motivate the student in evaluating the sensation area of vision, such as flashlights, bright toys, and so forth. Most deaf-blind children are stimulated by light. For example, if you walk into a room with low functioning deaf-blind children, many times you will see them with their necks bent back and heads up in the air looking at the fluorescent or incandescent lights. They are seeking visual sensation by way of the light. A teacher can utilize this same motivation by using a small flashlight to motivate the child, gradually widen the span and determine many things. She can move the light very close to the child's eye to see if he gets an eye-blink reflex, making sure that he is seeing the light. We watch to see whether he still maintains contact in the upper field, the lower field, and each of the side fields, to make certain that he is seeing in all directions. We may put colored cellophane up to the light to determine whether he is attracted moreto plain white light or to green light or to red light or to yellow light. Many times a child likes one color more than another and this can be a valuable tool in helping to develop these skills, if the teacher knows it. The teacher next utilizes non-illuminated objects to determine whether the child is seeing. A bright toy, such as a yellow car, can be moved in his direction to see whether a child reacts. Visual acuity is included in the sensation skills. In order to determine a low functioning child's distance acuity, we can tell whether he responds to his mother or a person he likes when they walk in the door and whether he can discriminate this person from another person. At near point a similar type of recognition skill can be utilized. A teacher likes to determine whether a child has distance visual acuity and to what degree; near point acuity and to what degree; to determine whether the child sees small objects, sees objects when you drop them; is able to maintain eye contact and for how long a period of time.

The second area of vision includes visual motor skills, in which the student has a motor response to his vision. That includes reaching for objects, distance judging, and visual tracking, among other skills. Eye contact is very important in this area. There are twelve oculomotor muscles attached to the two eyeballs and they must be coordinated in a manner that the student can fixate both eyes on what he is looking at. Many techniques can be utilized in determining and in training eye-contact skills. One of my favorites is operant conditioning, sometimes called behavior modification. One of the better places to attempt this is during mealtime. Find a favorite food that the child likes. Feed it to him if he is unable to feed it to himself. The only time you put it in his mouth is when he looks you in the eyes. Over a period of time you can build the eye-contact skills and this can carry over into other situations besides just feeding. With low functioning children, one good method of determining visual motor skills is to hold a toy or something the child likes in front of him. If he reaches for it, he is coordinating his eyes with his hands. Check his accuracy, whether he touches it the first time or not. Then let him hold it if he reaches for it.

Watch him to see whether he looks at it, or just holds it in his hands. If he looks at it, at what distance does he hold it; in which part of the visual field does he hold it; does he have to hold it in the upper right-hand corner of his field to see it? Many of these deaf-blind children only have partial sight in certain areas. Use different colored objects to see whether he reaches for one over the other. Evaluate to see whether he throws something down or gradually sets it down. See how accurate he is with his visual tracking, that is, is he able to maintain eye contact with an object while it is being moved in the horizontal field, in the vertical field, in the diagonal field, or is he operating in the most difficult, which is rotational.

The third area of vision includes using cognitive skills that are coordinated with visual motor responses. This includes the student's building and dismantling objects and figuring out how objects work. Piaget's model of cognitive development is an excellent one to be followed in this area. Piaget builds a cognitive model in scaling the child's skills. He starts off in the sensori-motor level, which he claims is between birth and 18 to 24 months of age, in which this is broken down into a number of different steps, beginning with reflexive behavior. The child then progresses into more complex types of cognitive levels which can be utilized in functional vision, because the visual part relates very closely to Piaget's model of cognitive development. Tools to determine this level of vision include elementary form boards, complex form boards, color matching, visual discrimination, and any type of material in which the child has to use more than just sensation or visual motor. Montessori techniques of education many times can be utilized and this works very well with building cognitive skills and visual motor.

These three areas combined form the field of functional vision. The teacher must have an understanding of the normal growth and development in addition to abnormal growth and development. She must realize that a child who is severely handicapped basically follows the same steps as a normal child in his visual development but on a much delayed scale. Whereas the normal functioning child may learn a skill at one month of age, the abnormal child may not learn the same skill until he is six years of age. A good teacher not only understands visual development but must know how to evaluate it, how to find out what motivates a child, what reinforces him, and what type of materials to use. The teacher must not get frustrated when the best-laid plans backfire and what she thinks will work will not. She must have alternative plans. Persistence pays off in working with the low functioning child.

A DIAGNOSTIC AND EVALUATIVE MODEL FOR DEAF-BLIND CHILDREN: A RESEARCH PROJECT

Dr. Jim Wise
University of South Carolina

Introduction

The purpose of this paper is to inform the interested reader of one of the research efforts underway in the South Atlantic Regional Center for Deaf-Blind Children. The target of the research effort reported herein is the development of a diagnostic and evaluative model for use by Deaf-Blind Evaluation Teams functioning in the various states which comprise the South Atlantic Region.

Philosophy

The major tenet in the philosophy behind the research effort is that there is now a felt need for such a model. As a system or program develops, it learns and becomes more sensitive to the tasks at hand. The nature of the Deaf-Blind program has changed drastically since its inception in 1968. It was extremely embryonic at inception, but grew rapidly in the next five years. It is now at the point where some professionals in the area feel that minimum standards are required. The research effort reported herein probably could not have been conducted as shortly ago as 1970, for not enough Deaf-Blind children had been evaluated at that time, nationally speaking, to develop the necessary experience base. Moreover, not enough professionals were involved in the evaluative process at that time. Growth of the program on a national level is predicted to continue for some time. However, in an era of stringent funding, a diagnostic and evaluative model which could provide maximum utilization of resources is not only suggested, it is demanded.

A second tenet for the model is that it should be a workable one. That is, it should allow for the vast individual differences that are now being found in the current deaf-blind population and those expected in the yet unidentified one. It should not be so rigid that it would preclude the applicability to each child, regardless of the syndrome he might manifest. Further, it should be a subjective model, one which allows for the expertise of each specialist in each evaluation team to come into play. Emphasis should be upon setting minimum requirements, not maximum ones.

Research Techniques

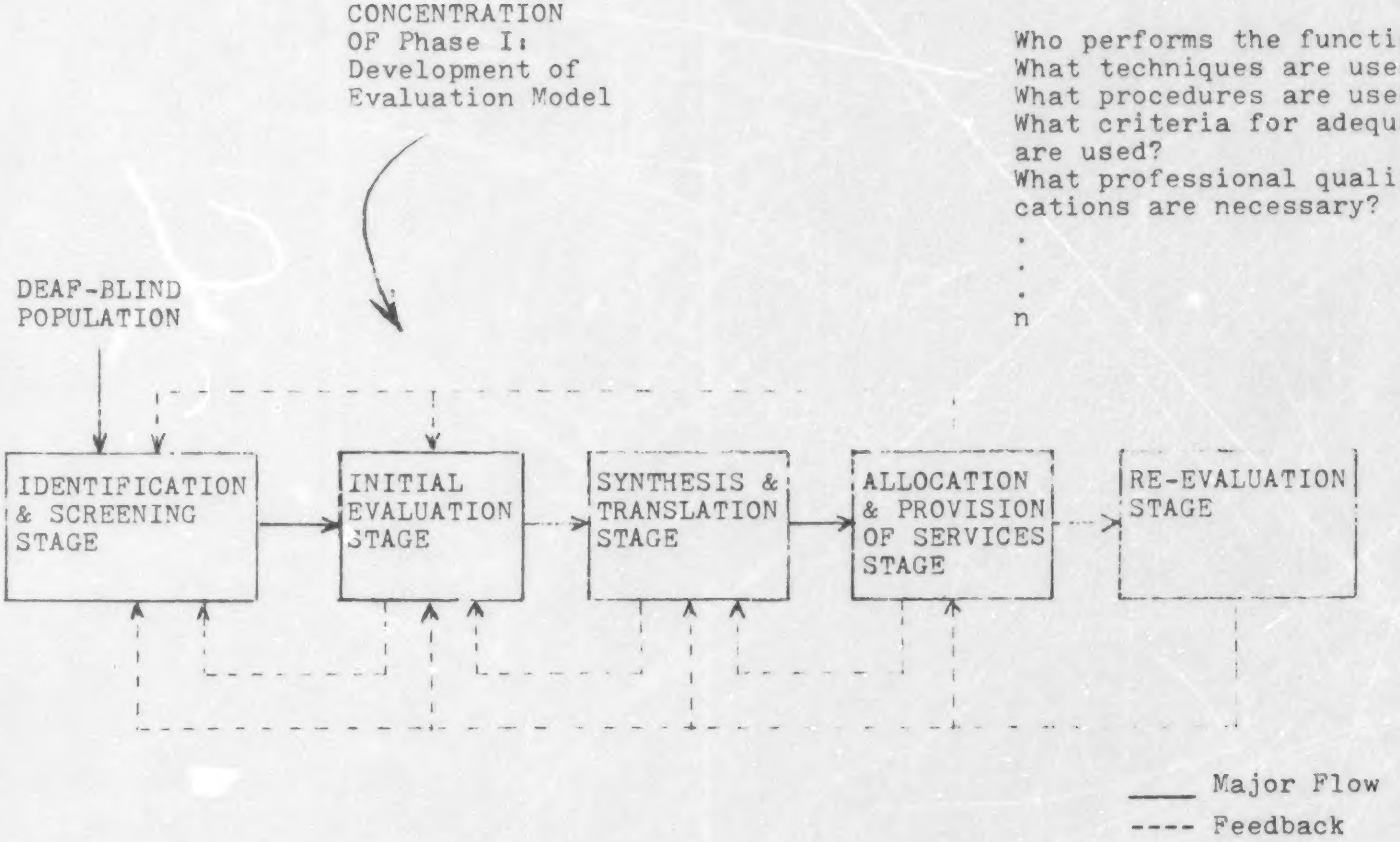
Initial planning for the research began in the Fall of 1973 when the regional coordinator of the South Atlantic Region approached members of the University of South Carolina's Task Force for Perceptual Research with the need for the development of such a model. After a careful study of the problem, a mutual agreement was reached on the desirability of developing a diagnostic and evaluative model. It was further agreed that the model should include medical, social, educational, and functional considerations.

Five stages comprising the national program for providing services to deaf-blind children were conceptualized. The first stage consisted of the identification and screening of deaf-blind children from their population at large. The second stage consisted of the initial evaluation, diagnosis, and prescription provided by the evaluation teams functioning in each state within each regional center. Equally of importance was a third stage which consisted of the synthesis and translation of the evaluative, diagnostic, and prescriptive aspects provided by the initial evaluation teams. Next was a fourth stage which allocates and provides the services called for by the previous stage. Lastly, a re-evaluation stage existed which provides validation not only of the allocation and provision of services stage, but also of each of the other stages in the process. The major stage of concern to the development of the model described within this report was the second or initial evaluation stage. Figure 1 illustrates these major stages.

Further thought on the focus of the effort ascertained that no absolute criteria were available for evaluating deaf-blind children. Consequently, an experimental approach was explored. It was concluded that such an approach would be feasible with the assistance of (1) those professionals currently performing initial evaluations within each of the eleven regional centers in the United States, and (2) the National Advisory Board for Deaf-Blind Children located in Washington, D.C.

A two stage design was explored. The first stage would consist of querying each evaluation team member functioning in each of the Regional Centers for Deaf-Blind Children in the United States. The data collection instrument would be the questionnaire. Each professional who conducted initial evaluations as a member of an Evaluation Team for Deaf-Blind Children would receive a specially designed instrument tailored for his/her professional specialty. The data sought would consist of precisely what each team member currently does in his/her evaluation of deaf-blind children in terms of medical, social, educational, and functional aspects. In addition, data concerning what is needed, in each professional's opinion, to assist him/her in performing better evaluations, would also be requested.

The data collection instrument would be a questionnaire especially designed for each professional team member. For example, if only the three professional specialties currently required by federal regulations, viz., pediatrician, ophthalmologist, and audiologist, functioned in X team in Y state in W region, then each of these would receive a separate questionnaire developed especially for his specialty. The criteria to be used in responding to each questionnaire would be the expert opinion of the specialist. Upon receipt of all questionnaires from all respondents, an analysis would be performed. Those practices, techniques, procedures, checks, tests, apparatus, etc., which were common to each specialty within the teams would be tabulated. Any additional needs that the specialists identified would also be tabulated. From these analyses, a prototype model would be developed. Such a model would reflect not only what was currently being done by all evaluation teams, but also what was yet needed. Further, these parameters would include medical, social, educational and functional aspects.



CONCENTRATION
OF Phase I:
Development of
Evaluation Model

Who performs the functions?
What techniques are used?
What procedures are used?
What criteria for adequacy
are used?
What professional qualifi-
cations are necessary?
.
.
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n

DEAF-BLIND
POPULATION

IDENTIFICATION & SCREENING STAGE

INITIAL EVALUATION STAGE

SYNTHESIS & TRANSLATION STAGE

ALLOCATION & PROVISION OF SERVICES STAGE

RE-EVALUATION STAGE

———	Major Flow
----	Feedback

SLIDE NO. 1

The second stage would consist of submitting the experientially derived prototype model to an external, but select, criterion group of experts, viz., the National Advisory Board for Deaf-Blind Children in Washington, D.C. The data sought during the second stage would be the minimum standards for each evaluation team member, by specialty, as deemed advisable for use in the evaluation of deaf-blind children. The data instrument would be the prototype model itself. The criteria to be used by the National Advisory Board members would be expert opinion.

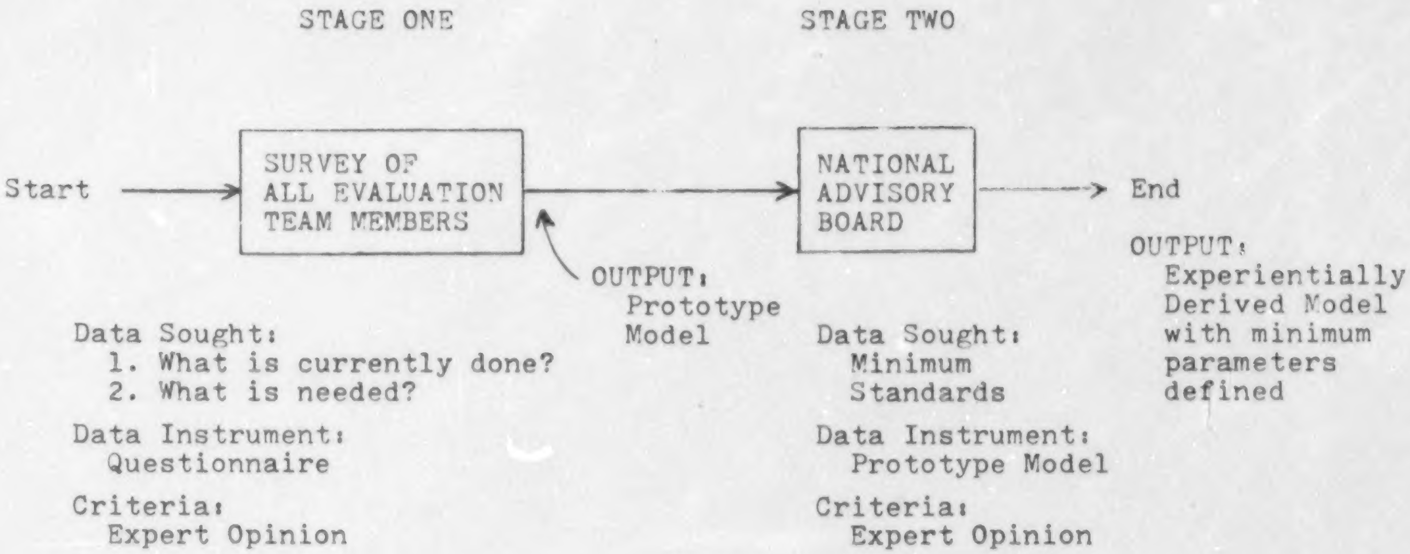
The output of Stage Two would be an experientially derived model for the evaluation of deaf-blind children. Those elements considered to be the minimum requirements for evaluation by the criterion group would be retained as salient to the basic model. Judgements of techniques, routines, tests, specialties, etc., above the minimum requirements would be retained in the model for selected use. Thus, a basic model containing minimum requirements for each specialty in terms of medical, social, educational, and functional aspects and experientially determined maximal parameters would be developed. The power of such a research design is enhanced by the fact that the criteria would be ascertained by two expert groups, viz., (1) professionals currently functioning in the area of deaf-blind evaluations throughout the United States, and (2) that select group of professionals comprising the National Review Board for Deaf-Blind Children. Figure 2 illustrates the rudiments of the proposed two stage research design.

Status of Project

The research effort was undertaken formally by the University of South Carolina's Task Force for Perceptual Research in mid January 1974. The first major task consisted of the development of the data collection instruments. It was accomplished during January, February, and March 1974. Two sources were used to accomplish this task. First, depth interviews were conducted with the various specialists who comprise the South Carolina Deaf-Blind Evaluation Team. Second, a review of the technical literature concerning Deaf-Blind evaluations was conducted. Data derived from the interviews and literature search provided the bases for the development of multiple questionnaires; one for each specialty providing evaluations on deaf-blind children. The questionnaires were designed to collect a maximum amount of information in a minimum amount of time. The average administration time sought was approximately 45 minutes. The use of simple "Yes, No, Sometimes" type items plus open-ended items in each instrument allowed the achievement of the targeted administration time.

During the month of April 1974, the data collection instruments were pretested. A sample was drawn from those professionals available in the Columbia, South Carolina area. The instruments were administered to the sample. Refinements relating to syntax, semantics, technical content, and administrative aspects resulted from the pretest.

The next research task relates to a mail query of the selected sample of respondents, that is, those specialists currently performing deaf-blind evaluations in all eleven regional centers in the United States. Since evaluation teams do change in composition and number each year, the original concept of using the entire population was modified as follows. Only those



STAGE ONE

STAGE TWO

Start

SURVEY OF
ALL EVALUATION
TEAM MEMBERS

OUTPUT:
Prototype
Model

NATIONAL
ADVISORY
BOARD

End

Data Sought:
1. What is currently done?
2. What is needed?

Data Instrument:
Questionnaire

Criteria:
Expert Opinion

Data Sought:
Minimum
Standards

Data Instrument:
Prototype Model

Criteria:
Expert Opinion

OUTPUT:
Experientially
Derived Model
with minimum
parameters
defined

SLIDE NO.2

team members who are now (circa 1974) members of evaluation teams and who evaluated three or more children in 1973 would be requested to respond.

Regional Coordinators in each of the eleven Regional Centers for Deaf-Blind Children have been contacted for information regarding the composition of team members by specialty, name, and address. When this information is received from the eleven Regional Coordinators, a national mailing to respondents will be executed. Figure 3 illustrates the research tasks completed and those yet remaining along with their time estimations.

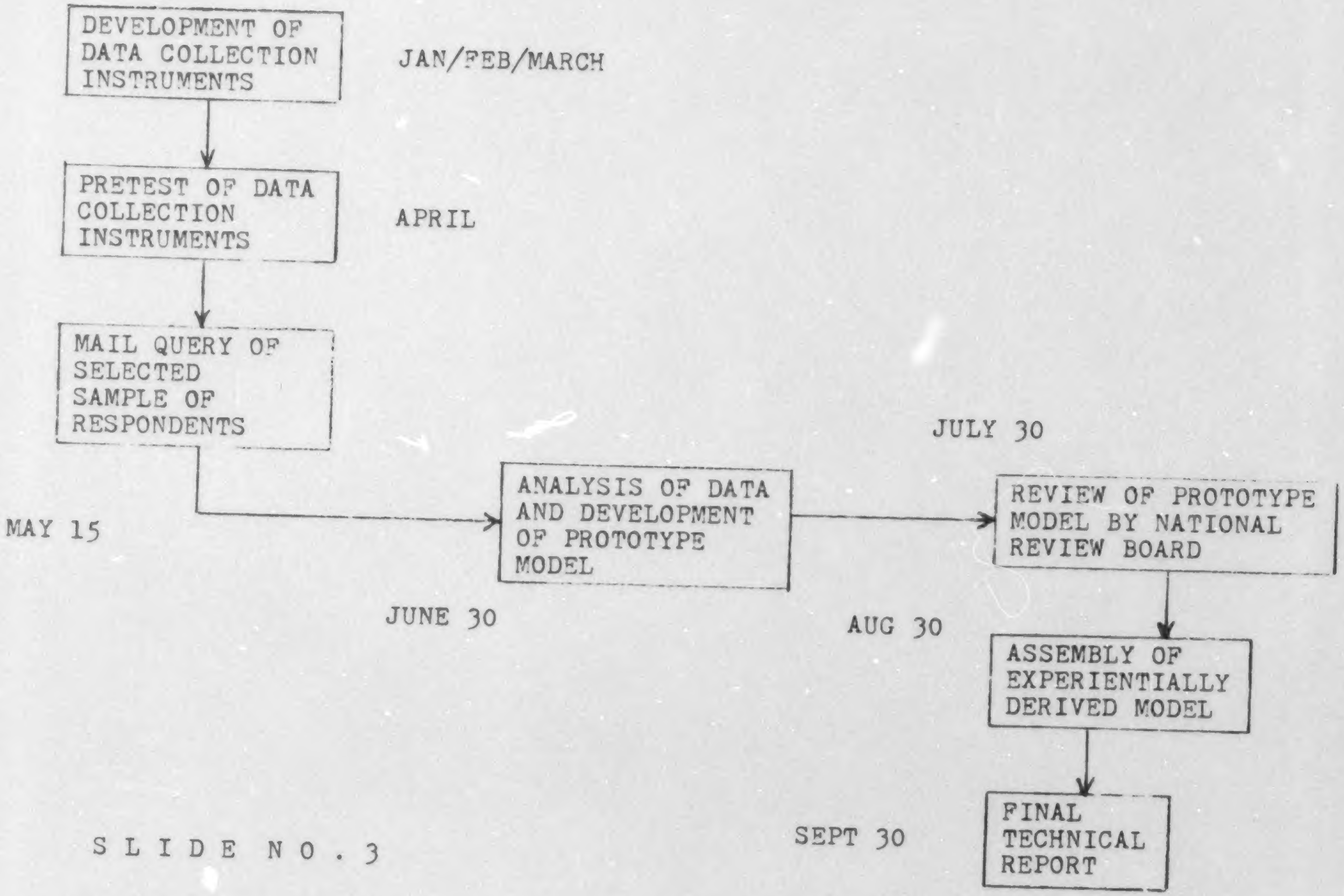
The time shown for uncompleted tasks are predicated on the timeliness and completeness of the requested information from the eleven regional centers. The projected target date for national querying has been set for May 15, 1974. By June 1974, it is expected that at least 75% of respondents will have returned their questionnaires. Seventy-five percent is the minimum percentage of responses that the analyses will be based on. It is felt that this percentage will assure sufficient sampling of the experiential base that is required for development of the prototype model.

Data analyses are expected to be completed by July 30, 1974. At that time the prototype model will be submitted to the National Review Board. A target date of August 30, 1974, is being sought for the return of the prototype model from the second criterion group. During the month of September 1974, the output from the National Advisory Board will be assembled into the final model. A technical report containing the model and how it was developed will be completed at that time.

End Product

The end product of the current research effort will be a diagnostic and evaluative model that contains medical, social, educational, and functional aspects. It will be an experientially derived model--one that has been derived from assessing the state-of-the-art as determined by a sample of professionals who are currently performing evaluations on deaf-blind children throughout the United States. It will contain minimum requirements for each professional specialty as determined by the National Advisory Board for Deaf-Blind Children. In addition, it will contain procedures, techniques, tests, etc., that exceed minimum requirements and which may be used on a selective basis.

The model will not be operational until validation through usage is accomplished. It is anticipated that a verification or validation phase will follow the developmental (current) effort. In such a phase, the model will be employed by one or more Deaf-Blind Evaluation Teams in the South Atlantic Region for a period of time. A comparison of the team(s) using the model and the team(s) using current, non-model procedures would then be made. If validation were to be accomplished, the model would then be operational and could be adopted by other teams in other states and in other regions.



DEVELOPMENT OF DATA COLLECTION INSTRUMENTS

JAN/FEB/MARCH

PRETEST OF DATA COLLECTION INSTRUMENTS

APRIL

MAIL QUERY OF SELECTED SAMPLE OF RESPONDENTS

MAY 15

ANALYSIS OF DATA AND DEVELOPMENT OF PROTOTYPE MODEL

JUNE 30

REVIEW OF PROTOTYPE MODEL BY NATIONAL REVIEW BOARD

JULY 30

ASSEMBLY OF EXPERIENTIALLY DERIVED MODEL

AUG 30

FINAL TECHNICAL REPORT

SEPT 30

SLIDE NO. 3

CURRICULUM DEVELOPMENT FROM 0-6 YEARS

Dr. Verna Hart
University of Pittsburgh

Guidelines for curriculum development have been around for a long time. It is interesting to look at the books of today that give the "how to" of developing a curriculum and find that the same model is presented as in the books written sixty years ago. The format may vary, the language is different, and the examples are more modern, but the steps in development remain the same.

The first step in developing a curriculum is to specify the objectives you wish to achieve. It is at this point that our philosophies, biases, and personal prejudices appear. If we think our students should be well versed in art and music, our objectives clearly show this. If excellence in sports is important, objectives will reflect that bias. If we strongly believe in a classical education, the objectives will be such that our students are exposed to the body of knowledge that comprises a classical education.

After the objectives of a curriculum are identified, methods and strategies must be developed to enable the students to meet those objectives. These methods, strategies and activities should be such that they select and organize the experience which will foster concepts leading to attainment of the objective. If appreciation of different art forms is our objective, strategies that we would develop should expose the students to the specific art forms in our objectives. Students might visit museums, study pictures, sculptures and paintings. They might paint or sculpt themselves. They might copy the works of masters. Methods and means of exposing the students to art forms would reflect our creativity as teachers and our ingenuity in coming up with activities to generate enthusiasm by presenting interesting information and making the acquisition of knowledge exciting.

Important to the activities are the materials to be used. These materials would have to relate directly to the activity to be undertaken - paint brushes for art activities and slide rulers for math problems. The more appropriate the materials, the easier to carry out the activity. A wide brush is difficult to use when you want to paint a very fine line. This may seem like oversimplification, but it is most important to be thorough in material selection and to assume nothing. Initially, activities would be quite specific. Later, they would be planned to determine if the students could generalize their knowledge and apply it to other activities.

And, finally, as the last step in planning our curriculum we must analyze or evaluate the activities to see if they do indeed help the students reach the objective.

These steps of curriculum development: the identification of objectives, planning activities and materials, and evaluating the activities are all used no matter what curriculum is planned.

Let's now apply these same steps to developing a curriculum for deaf-blind children from birth to six years of age. The first step must be to identify our objectives. What do we want for our children? To learn to be independent in their daily living skills? To learn to communicate? To work?

It's here that many curriculum developers have difficulty, because a curriculum will only be effective in reference to the identity of objectives. If we have narrow objectives, our curriculum will be narrow. If we specify only self-care skills, our curriculum will reflect only activities leading to attaining self-care skills. It is important, then, to think as comprehensively as we can so we can develop our children as broadly as possible.

Those who have studied normal children and their growth have identified several areas of development: gross and fine motor, social and emotional, percept and concept, communication, and self care. If we think of the "whole child", we'll have to have each of those areas reflected in our curriculum objectives.

If we select objectives in each of those areas, our activities must then be based on and relate to the objectives. A curriculum can break down at this point if the activities do not reflect these objectives and if the child himself is not considered. If we're teaching a child to use a spoon, the task is much easier if he likes food than if he prefers a bottle. The activity must match the child.

The activity must consider the stage of development of the child. Spoon behavior is not appropriate for a child functioning at the six month old level because he has not yet established good hand to mouth movement with grasp and release. The sequence of growth becomes important. Does he have the prerequisite developmental skills needed? If he doesn't, the activity will fail, no matter how much time we spend in preparation.

Most of us aren't too familiar with the sequence of development of each of the areas of child development. I've included the sequences here for easy reference. It is most important that we plan activities to allow the children to progress from one stage to the next. Our handicapped children have so much to learn and they begin so far behind normal children that we must not waste time in getting them to their highest level of functioning.

The sequence of development can be our objectives in curriculum development as well as our criteria for evaluation. If a child is sitting, what must he learn before he can walk? If we consider the sequence of motor behavior, we can see that standing becomes our objective in the motor areas. Our activities and teaching materials are then all geared to standing. When he has standing balance, we can then work on walking.

As soon as he masters any step, we check that step off and look to the next one for our teaching objective. Our activities and materials then become specific for a particular level of development.

We can only say that a child is functioning at a specific level of development if he has learned all of the tasks listed for that age level. Why? Because one of those tasks at that level may be a prerequisite for attainment of a higher level. By assuming he is at a certain level because he has attained most of the skills, we would begin programming curriculum at too high *a level for him. This would lead to frustration for both the child and ourselves as teachers. It is far better to let the child experience success as he sequentially goes from one stage to the next.*

It's important to stress here that the child's program should be dictated by his ***functioning level.*** *When it comes to curriculum development, the activities should be geared to where he is, not how old he is. Many handicapped children are above six years chronologically, and still retain areas where they function as children between birth and six. They will not make maximum gains until we go back to where they are and take them sequentially from that point. So forget how old they are and plan developmentally.*

A problem that is foremost in the minds of all of us as we develop curriculum for deaf-blind children is handling the problems that the deafness and the blindness present when we try to help our children go through the developmental sequence. We cannot ignore or skip the percepts and concepts that are visually and auditorally formed by normal children. The curriculum task is manifested at the activity level where we must choose strategies that will help the children gain the concepts needed to sequentially go to the next stage. Ear-hand coordination will have to be developed if a blind child has useful residual hearing. Tactual, kinesthetic, olfactory, and gustatory senses will all have to be used to get the concepts across. Gestures and formal signs substitute for oral speech. Residual vision is supplemented by all of the senses. All of our resources are brought to play to help children attain those skills that are necessary for future stages.

There are many curricula on the market. Some have been developed specifically with and/or for deaf-blind children and others have not. Some that have been developed for other types of handicapped children can be used with our deaf-blind children if the activities are altered to account for the vision and hearing loss. The objectives remain the same; the activities and/or materials may differ. Examples of developmentally sequenced materials that can be used with deaf-blind children are the Memphis Project, Portage Project and Northcott materials.

It is not important what specific curriculum you use. Of importance is whether the objectives cover the whole child, whether activities and materials are matched to the child and to his level of development, whether the activities take him sequentially to the next step, and whether the activities are appropriate to reach the objectives. Rather than recommend a specific curricula from the many developed for deaf-blind, I leave you with the criteria for good curriculum development and encourage you to evaluate the materials, and to do it on a continuing basis.

DEVELOPMENTAL CHECKLIST

Child's name ____________________

Date of birth ____________________

Date of first evaluation ____________________

Child's chronological age at first evaluation ____________________

Date of second evaluation ____________________

Child's chronological age at second evaluation ____________________

Date of third evaluation ____________________

Child's chronological age at third evaluation ____________________

Date of fourth evaluation ____________________

Child's chronological age at fourth evaluation ____________________

Developmental Age

	First Evaluation	Second Evaluation	Third Evaluation	Fourth Evaluation
Gross Motor				
Fine Motor				
Perceptual				
Conceptual				
Social				
Emotional				
Communication				
Self Care				
Eating				
Toileting				
Dressing				
Other				

Gross Motor

___ 8 weeks _____ Readily lifts chin from face down position

___ 12 weeks _____ Raises head and shoulders with forearms when on stomach

___ 16 weeks _____ Holds head up when sitting supported

___ 20 weeks _____ Rolls over on side from back position
_____ Sits supported in high chair
___ 32 weeks _____ Begins to sit unsupported
_____ Can support entire weight on legs for short period when held up
___ 36 weeks _____ Sits steadily unsupported for a long time
_____ Raises body to crawling position and may crawl backwards
___ 40 weeks _____ Pulls self to sitting and standing positions

___ 44 weeks _____ Creeps forward on hand and knees with stomach off the floor

___ 48 weeks _____ Can turn and pick up object while sitting
_____ Walks sideways using support or forward with two hands held
_____ Lowers body from standing to sitting by holding on to support

___ 11 months _____ Beginning of hip rotation - leads with hips when turning over

___ 13 months _____ Stands alone

___ 15 months _____ Stands self up without using support
_____ Creeps upstairs

___ Less than 1 year to 18 months _____ Walks alone with immature gait

___ 18 months _____ Climbs stairs holding rail
_____ Goes down stairs creeping backwards
_____ Pulls and pushes toy while walking
_____ Can throw ball without falling
_____ Pushes chair about and climbs on it
___ 21 months _____ Walks backwards
_____ Begins to run
_____ Begins to jump
___ 2 years _____ Walks up and down steps alone, 2 feet per step
_____ Can kick a ball
_____ Climbs on chair to reach object out of reach
___ 2½ years _____ Walks on tiptoes
_____ Jumps down with both feet
___ 3 years _____ Can stand on one foot for a few seconds
_____ Jumps off floor with feet together
_____ Goes upstairs with one foot per step
_____ Catches large ball with arms out straight
_____ Rides tricycle
_____ Walks a line for 10 feet
___ 4 years _____ Hops on 1 foot
_____ Runs, stops, starts, turns
_____ Can carry a cup of water without spilling it
_____ Catches a large ball with arms bent at elbows
_____ Alternates feet going downstairs, 1 foot per step
___ 5 years _____ Skips with both feet
_____ Marches in time to music
_____ Shifts body to keep balance when throwing a ball
_____ Can climb on and off a bus unaided

Fine Motor Development

___	1 month	_____	Thumb has characteristic curled - in position
___	3 months	_____	Disappearance of grasp reflex; no longer are hands tightly closed
		_____	Holds rattle voluntarily when it is placed in his hand
___	4 months	_____	Thumb doesn't participate when grasping a cube
		_____	Hands come together at midline as he plays
		_____	Plays with rattle placed in hand for prolonged period
		_____	Mouths objects (Puts everything in mouth)
___	5 months	_____	Approach to objects is two handed
		_____	Grasp is limited to large objects
		_____	Reaches
___	6 months	_____	Uses hands to reach, grasp, crumble, bang, and splash
		_____	Makes scooping motion with hand in grasping pellet
		_____	Thumb opposes in grasping cube
___	7 months	_____	Transfers objects from one hand to the other
		_____	Hands cross the midline
		_____	One hand approach
___	9 months	_____	Uses pincer grasp (thumb and forefinger with one hand in picking up object
___	10 months	_____	Begins to release, lets object go deliberately, not accidentally
___	12 months	_____	Places cube into a container
		_____	Pincer grasp (thumb and forefinger) of small object
		_____	Mouthing stops
		_____	Palmer hold of crayon (holds crayon across palm of hand)
___	15 months	_____	Helps turn book pages
___	18 months	_____	Holds two objects in one hand
___	2 years	_____	Begins to extend fingers toward point of writing instrument
		_____	Turns door knob, unscrews lids
___	3 years	_____	Can pluck object from table without touching table top
		_____	Reaches for object without having to look directly at it
___	4 years	_____	Holds hand above or to one side so as not to obstruct view of what he builds
		_____	Independent use of both hands in building
		_____	Improved steadiness of hand, timing and release of objects
		_____	Cuts with scissors
___	5 years	_____	Grasps in adult manner with two little fingers curved into palm
		_____	Grasps and places object in one continuous movement

Drawing

___	18 months	_____	Scribbles spontaneously
		_____	Imitates Vertical
___	24 months	_____	Imitates Horizontal
		_____	V Stroke
___	36 months	_____	Copies circle
		_____	Imitates cross
		_____	Draws man
___	43 months	_____	Copies cross
		_____	Traces diamond
___	54 months	_____	Copies square
___	60 months	_____	Copies triangle
		_____	Copies diamonds and
		_____	Rectangle with diagonal

Cube Building

___	15 mo.	_____	2 cube tower
___	18 mo.	_____	3 cube tower
___	21 mo.	_____	5 cube tower
___	24 mo.	_____	6 cube tower
		_____	3 blocks horizontally
___	30 mo.	_____	8 cube tower
___	3 yrs.	_____	9-10 cube tower

Puzzles

___	18 mo.	_____	Round shape
___	3 yrs.	_____	Square shape
		_____	Triangle shape
		_____	Turns pieces to fit

Perceptual Development

___ 1 month _____Follows horizontal movement of light or bright object to midline
_____Responds to loud noises by crying or startling (newborn)
_____Quiets and reduces activity because of approaching sounds

___ 2 months_____Eyes fixate, converge and focus
_____Long waves (red, orange, yellow) are perceived first
_____Follows vertical movement
_____Accepts loud noises as part of environment--doesn't react violently

___ 4 months_____Looks intently at objects in hand or in front of him
_____Responds massively (head, shoulders and arms) to an object dangling in front of eyes
_____Lateral head and eye movement in search of sound (beginning of localizing response)

___ 6 months_____Fixates where object disappears
_____Localizes sound by moving head and eyes laterally and upward

___ 7 months_____Looks for fallen object
_____Finds partially hidden object
_____Localizes sound by moving head and eyes in sweeping arc to source

___ 9 months_____Picks up string or object the size of a small pea between finger and thumb

___ 10 months_____Looks around corner for objects
_____Imitates gestures (waving bye-bye) and facial expressions

___ 1 year _____Perceives roundness, puts finger or rod in round hole

___ 18 months_____Shows interest in pictures and can identify objects in pictures
_____Responds to two simple commands

___ 2 years _____Increase visual memory span-looks for missing toys, recalls events of previous day
_____Can select named object from group of objects or pictures
_____Repeats 3-4 syllable sentences
_____Repeats 2 digits in one of three trials

___ 3 years _____Puts two halves of pictures together even when rotated 180°
_____Imitates building of bridge, i.e., horizontal and vertical
_____Matches forms by inserting circle, square and triangle in cut-out forms even with reversal of position
_____Matches mounted colors (red, yellow, green, blue)
_____Repeats three digits, not in counting sequence, one out of 3 trials

___ 4 years _____Can supply 3 missing parts to a drawing of an incomplete man
_____Makes comparative size discriminations consecutively
_____Discriminates length of lines regardless of orientation
_____Can match eight of ten forms
_____Traces diamond shape between 2 parallel lines
_____Copies circle more accurately with ends joining

Perceptual Development Continued. . .

___ 4 years _____ Uses plurals
_____ Repeats 12-13 syllable sentences
_____ Repeats 3 digits, three out of three trials
_____ Discriminates noisemakers
_____ Matches sound blocks by loudness

___ 5 years _____ Perceives details visually and asks about them
_____ Puts diagonals together: 2 triangles to make a rectangle
_____ Matches ten forms
_____ Can insert sequence of nesting cups
_____ Names four colors
_____ Carries a melody
_____ Claps to rhythm of song or drum
_____ Perceives detail auditorally: selects a word from a sentence and asks about it
_____ Repeats 4 digits, two out of three trials
_____ Can grade sound clocks by loudness

___ 6 years _____ Repeats five digits

Conceptual Development

____	1 month	_____	Basic sensory responses (vision, hearing, touch)
____	4-8 months	_____	Intention and means/end are beginning to develop; Child shakes a rattle to hear
		_____	Beginnings of object permanence: He looks, for a short time, for object removed from field of vision. Out of sight object still exists.
		_____	Puts "motor meaning" to objects. Shakes head at sight of rattle
____	8-12 months	_____	Beginning of symbolic meaning: Uses actions to represent object
		_____	Overpermanence of objects - Child watches you hide an object in one hand and finds it. Watches while hidden in other hand but looks in first hand
		_____	First indication of causality: If I do this, something happens
		_____	Applies what has worked in one situation to new situations
		_____	Responds to "no"
		_____	Responds to name
____	12-18 months	_____	Overpermanence disappears
		_____	Development of space perception
		_____	Modifies what has worked in one situation to fit new perceptions
		_____	Trial and error processes begin
		_____	Causality - child uses string to pull object to him
____	18-24 months	_____	Can point to own body parts (2-3)
		_____	Formulates negative judgement. "Fork is not a spoon."
		_____	Says "no" on high plane of logic
		_____	Object permanence - child looks behind couch for ball that rolled under front
____	24-30 months	_____	Understands concepts, in, under
		_____	Knows 4 body parts
		_____	Can answer, "What do you do with _____?"
		_____	Listens to stories
____	3 years	_____	Understands concepts in front of, behind, on
		_____	Comparison of lines: can pick out the longest
		_____	Verbs - can answer, "Show me sitting."
		_____	Adjectives - big, little, hard, soft
		_____	Can classify objectives on the basis of physical attributes
		_____	Can make a choice of two alternatives
		_____	Comprehends hunger
____	4 years	_____	Comparison of weights - can find the heaviest
		_____	Knows colors
		_____	Understands money is for purchasing
		_____	Defines objects by their use

Conceptual Development Continued. . .

___ 4 years _____ Can tell stories without pictures
_____ Can classify on the basis of groups - "These are all animals."
_____ Counts pointing to 3 objects (Concepts to 2)
_____ Understands opposites: hard-soft, hot-cold, big-little

___ 4½ years _____ Can classify on the basis of function
_____ Can answer "Is it hot in winter?"

___ 5 years _____ Can make aesthetic comparison "Which is pretty?"
_____ Can make application of "many-to-one" but not "one-to-many" ("these all are fruit" but not what they might have in common)
_____ Follows and repeats sequence of a story

___ 5½ years _____ Can classify by association - rattle goes with baby
_____ Developing right-left concept

Emotional Development

___	4 weeks	_____	Emotional response of distress begins
___	1 month	_____	Quiets when picked up
___	6 weeks	_____	Smiles at mother in response to her smiles, voice, physical care
___	12 weeks	_____	Bubbles when spoken to
___	16 weeks	_____	Laughs aloud, smiles and sobers
___	20 weeks	_____	Emotional responses becoming relative to specific situations
___	24 weeks	_____	Stretches arms out to be taken
		_____	Fear response to loss of support, sudden loud noises
___	28 weeks	_____	Plays peek-a-boo with mother
		_____	Responds to name
		_____	Pats image of self in mirror
		_____	Distress differentiates into more specific responses of fear, disgust, anger
		_____	Delight differentiates into elation, affection
___	9-10 months	_____	Stranger response, shows distrust
		_____	Sleeps through the night
___	1 year	_____	Agressive interaction with environment begins
		_____	Willfully disobedient
		_____	Expressions to fear, anger, affection, anxiety and sympathy in keeping with situations causing them
		_____	Distinguishes between you and me
___	2 years	_____	Separates readily from mother when handled properly
		_____	Curious and busy
		_____	Uses I, me, you
		_____	Emotional arousal sudden, intense, brief--temper tantrums
___	3 years	_____	Shows sympathy in response to bandages, crying, accidents
		_____	Develops jealousy toward siblings
		_____	May rage at difficulties he experiences in dressing
		_____	Fear of dark, bugs, and strange situations like nursery school
		_____	Sacrifices immediate satisfaction on promise of later privilege
		_____	Begins to use words to express feelings
___	4 years	_____	Genital fixation and exploration--likes to go to bathroom with others to satisfy his curiosity
		_____	Aware of attitudes of peers
		_____	Shares possessions
		_____	Fabricates, alibies, rationalizes
		_____	Separates readily
___	5 years	_____	Sensitive to social situations, aware of status, feels shame if he doesn't live up to his own expectations of others
		_____	Shows ability to delay gratification
		_____	Accomplishes in wielding tools and meaningful toys
		_____	Loyal to playmates and devoted to teacher
		_____	Proud of school accomplishments, satisfied with artistic production
		_____	Sparked into increased activity by rivalry
___	6 years	_____	Beginning of value judgments about his own behavior, setting up standards for himself

Social Development

___	1 month	_____	Eye contact
___	12 weeks	_____	Knows mother and recognizes her
		_____	Enjoys evening play with father
___	16 weeks	_____	Spontaneous social smile - laughs aloud
___	20 weeks	_____	Cries when someone leaves him
___	24 weeks	_____	Smiles and vocalizes at mirror image
		_____	Discriminates strangers
___	23 weeks	_____	Goes towards familiar persons for companionship
___	32 weeks	_____	Withdraws from strangers
___	40 weeks	_____	Waves bye-bye and pat-a-cakes
___	44 weeks	_____	Drops objects deliberately so that they will be retrieved
___	1 year	_____	Gives object to another on request
		_____	Anticipates body movements when nursery rhyme is being said (Pat-a-cakes)
___	13 months	_____	Hugs and shows affection toward doll or teddy bear
		_____	Plays near other children, not directly with them
___	21 months	_____	Mimics household chores
___	2 years	_____	Can call himself by his own name
		_____	Knows his common body parts
		_____	Calls all men and women Mommies and Daddies, children Baby
		_____	Cannot play with more than one child without direct supervision
		_____	Snatches, grabs objects from others
___	2½ years	_____	Calls women Lady and men Man
		_____	Knows he is a boy like father and that he is different from girls and mothers
		_____	Says "I need", "I don't like"
___	3 years	_____	Can tell difference between boys and girls but makes no distinction in his play
		_____	Talkative
___	3½ years	_____	Interest in marriage and marrying
		_____	Imaginary playmates
		_____	Child plays the role of animals
___	4 years	_____	Plays well with 1 child or in supervised group
		_____	Tendency in play groups for a division along sex lines
		_____	Beginning of strong feeling for family and home
		_____	Bossy, criticizes, calls names
___	4½ years	_____	Capable of playing in small groups without supervision
___	5 years	_____	Spurred on by rivalry

Communication

___ 1 month _____ Change in pitch - sign of bodily discomfort

___ 2 months _____ Babbling begins, coos, gurgles
_____ Reflex activities produce sounds
_____ Repeats sounds for physical pleasure and auditory stimulation

___ 3 months _____ Cry changes with body state
_____ Differentiated crying. Mother can tell pain cry

___ 5 months _____ Vocal play

___ 6 months _____ "Talks" and gestures to objects
_____ Jargon with changes in tone

___ 7 months _____ Vocalizes emotional state

___ 8-12 months _____ Meaningful attempt at conversation
_____ First word
_____ Understands phrases and wholes
_____ Responds by action to command
_____ Echolalia - repeats words exactly as you say them
_____ 1 word sentences (5-6 word vocabulary)
_____ Responds to own name
_____ Understands gestures

___ 15 months _____ Indicates needs by pointing or vocalizing

___ 18 months _____ Jargon directed at people
_____ 1.5 word sentence, 15-20 words
_____ Understands simple questions
_____ Pulls toward food

___ 18-24 months _____ Understands most linguistic units - not yet separated into word units
_____ Pulls to communicate
_____ Imitates animal environmental sounds
_____ Uses one word for many unrelated things - extension of meaning
_____ Uses 100-200 words, recognizes 120-275

___ 24-30 months _____ Verbalizes simple experiences and emotions
_____ Speech with pointing
_____ Speech has become a tool as well as warning and safety value
_____ 1.8 sentence

___ 30-36 months _____ Comprehends time words
_____ Uses compound and complex sentence structure and plurals
_____ Questions begin
_____ 3.1 word sentences, 3---500 word vocabulary
_____ Responds by action to commands, an, under, up, down, run, walk
_____ Names objects

Communication Continued. . .

___ 3 years _____ Says full name
_____ Final consonants appear, sound begins to include blends, speech 90-100% intelligible
_____ Uses 2-word phrases, 600-1,000 words
_____ Asks questions about persons, things, and processes
_____ Uses pronouns, some adjectives, adverbs, prepositions

___ 3-6 years _____ Repetitions are frequent
_____ Relates experiences with understanding of sequence
_____ Asks why but not for knowledge

___ 4 years _____ Normally fluent
_____ Advancing sentence structure, uses articles, 4-6 word sentences
_____ Alludes to objects, persons, events outside immediate environment
_____ Follows 2-stage command

___ 4-6 years _____ Reverses order of sound
_____ Spontaneous grammar correction

___ 5 years _____ Relates fanciful tales and present and past events
_____ Language becomes symbolic
_____ Uses all basic sentence structures
_____ 5-6 word sentence length, 1,500-2,100 vocabulary, understands 2,500-2,800 words
_____ Counts to 10, knows age, name, primary colors
_____ Follows 3-stage command

Self-Help Skills

Eating

___	6 months	_____	Holds bottle
___	7 months	_____	Feeds self biscuit
		_____	Chews food
___	10 months	_____	Accepts new solid food
___	15 months	_____	Grasps spoon and inserts into dish
		_____	Holds cup with finger grasp but apt to tip it too quickly
___	18 months	_____	Fills spoon and feeds self in part, spills much
		_____	Lifts cup to mouth and drinks well
		_____	Hands empty cup to mother
___	21 months	_____	Handles cup with ease, lifting, drinking, and replacing
___	2 years	_____	Stops turning of spoon before it gets to mouth, still needs help in feeding
		_____	Holds small glass in one hand as he drinks
___	2½ years	_____	Little spilling in self feeding
___	3 years	_____	Pours well from a pitcher
		_____	Clears and cleans table
___	4 years	_____	Likes to serve self at table
		_____	Eats with fork
		_____	Uses knife
		_____	Rarely needs assistance to complete a meal

Toileting

___	15 months	_____	Does not indicate toilet needs but does indicate wet pants
___	18 months	_____	Toilet regulated in day time - both bowel and bladder
___	21 months	_____	Asks for food, toilet, and drink by gesture or word
___	2 years	_____	Dry at night if taken up at least once
		_____	Verbalizes or signs toilet needs consistently
___	2½ years	_____	Tends toilet without help except for wiping

Dressing

___	15 months	_____	Cooperates in dressing by extending arm or leg
___	18 months	_____	Can take off mittens
		_____	Can take off hat
		_____	Can take off socks
		_____	Can unzip zippers
		_____	Tries to put on shoes
___	2 years	_____	Pulls on simple garments, finds large armholes and thrusts arms into them
		_____	Can remove shoes if laces are untied
		_____	Removes coat
___	3 years	_____	Puts on shoes
		_____	Puts on underpants and slacks
		_____	Unbuttons front and side buttons by pushing them thru buttonholes

Self-Help Skills Continued. . .

___ 4 years _____ Dresses and undresses if lightly supervised
_____ Distinguishes front and back of clothes and puts on correctly
_____ Laces shoes
___ 6 years _____ Ties shoe laces

Other

___ 2½ years _____ Puts things away
___ 3 years _____ Washes and dries hands
_____ Sleeps at naptime 'til 3 years
___ 3½ years _____ Puts away toys with some supervision
_____ Washes and dries hands and face
___ 4 years _____ Brushes teeth
_____ Puts away toys by himself
_____ Goes on errands outside of home
___ 5 years _____ Can safely cross streets, if not too hazardous and can help a younger child to cross street
_____ Combs and brushes hair

CURRICULUM DEVELOPMENT FOR THE DEAF-BLIND CHILD AGE 6-12

Virginia Alexander

When I think of a normal child six to twelve years old, I think of children in first grade, second, fifth, right on up to seventh grade. What a range! When I tried to relate this high range functioning to the deaf-blind children I have known and know now, the two just didn't mesh. But, when I think of any deaf-blind child and the problems and needs, there are commonalities in methods of planning regardless of the child's age. However, there are some specific needs relative to the child's age which I will touch upon as I continue.

To begin, each deaf-blind child is different from every other. His learning problems and needs and his best modes of learning are a little different from any other child. And, as is finally becoming recognized on a national level, the child need not be molded nor boxed to fit the curriculum. The curriculum must be planned and adapted to fit the needs of the child.

Second, the deaf-blind child is a child first, then he is deaf-blind. Those of you who work with rubella children may know that this is sometimes hard to remember. When you tried to praise him or show affection physically with a hug or a pat, you may have been ignored. When you tried to reward him with a piece of candy or some other special "goodie", you may have been pushed away. This child may prefer to self-stimulate all day; he may prefer to light gaze or finger flick, to eye poke, to masturbate, or to rock. He may be saying in his own non-verbal way "This is my world, and I like it this way - you keep out!" But we believe there is something that we as persons and as teachers have to offer this child; we believe that other persons have something to offer him. If we did not believe this, why not overprotect him? Why not allow him to self-stimulate and just have his own way?

But we believe even more. We believe the child, too, has something to offer. He has something to offer to himself beyond physical self-stimulation. He has something to offer us and to significant others in his life. He can take part in family life. He can learn to participate in activities that give pleasure, self-satisfaction, and joy to himself and others.

Believing these things, we must take action. We must communicate with the child. Perhaps this will take a tactual form: the child may learn to read braille, or he may learn to understand fingerspelling in his hand. The child may learn visually: he may learn manual communication such as gestures or more formal signs, or he may learn to read large print.

Some children learn auditorily and can learn to discriminate spoken language. Finally, with some children we will have to use some combination of methods. In any case, we must learn to get our meaning across to the child.

Second, we must teach the child to communicate with us and with significant others in his life. Here again, the method of communication may vary-the important thing is the exchange of ideas. Finally, we must enable the child to become more interdependent (I'll do this for you and you do that for me) and more independent (I can feed myself!) so that he is better able to function in his environment. Thus we must plan the child's curriculum to encourage his development in the areas we think will lead to the attainment of these goals.

So, we have certain beliefs and know that we must take action to develop a curriculum. Just what do I mean by a curriculum? When I use the word curriculum in this context, I mean the total educational plan developed specifically to meet the needs and abilities of one deaf-blind child. However, I am not referring to a 12 year plan to cover his total life in the educational system. I am referring to a plan with short term goals (those we are working on right now) and long term goals (those we might expect to work on three months or a year from now). This is the teacher-made educational plan for one child. What are the components for such a plan?

1. Provisions for Evaluation. The curriculum must provide for an initial evaluation of the child's development level and his special needs. At this point, the teacher would check medical, psychological, social, and educational histories, keep observational data, and behavior ratings to determine the child's skills and needs.

2. Provisions for the "Total Child". The curriculum must provide for the child as an individual functioning in an environment. The curriculum must recognize the child's interests, his age, and near future. For example, two deaf-blind children might at first appear to have similar skills and needs based on their developmental profiles. They might both be functioning on an overall developmental level of about seven years. However, if one child is nine years old and the other is nineteen, their needs for the near future will be very different. One has several more years in the educational system, while the other must be prepared for the "outside world".

3. Provisions for Areas of Development. Specialists in the development of the normal child have divided normal development into several areas in which the child develops skills in learning to control himself and his environment. These areas may differ from one expert or one book to another. I think the important thing they do is help us to organize our thinking into logical areas so that we can teach the skills the child needs and with all the areas together, we will include all of the things necessary to his development. In working with deaf-blind children, I use seven areas. Each area is made up of a continuum of knowledge and skills in several sub-areas.

    a. Personal-Social-Emotional Development. This area includes development of self-concept and self control, the traditional area of sex education, and development of social and recreational skills.

    b. Adaptive Daily Living Skills. This area consists of everything from self-feeding and dressing, on up to the higher level skills of personal management or what would traditionally be called "Home Economics". It would also include development of attention span and work habits and skills.

c. Orientation and Mobility. This area includes development of body image and movement in space. The child must know where he wants to go and how to get there.

d. Motor Development. This area includes the development of both gross and fine muscles and skills.

e. Sensory Development. This area includes development of residual senses and perceptual skills in vision and hearing as well as development of discrimination in the use of touch, smell and taste.

f. Cognitive Development. This area includes the development of concepts, problem solving, and the use of thinking processes.

g. Communication. This area includes the development of inner, receptive, and expressive language.

All of these areas are related. For example, in orientation and mobility, for a child to go from the classroom to the gym, he must have some self-concept and the emotional control and attention span to follow-through on the task; he must have the gross and fine muscle control to open doors, negotiate steps, or whatever else is necessary in his movement; he must have the sensory development to pick up clues from his environment to know where he is and where to turn or where to continue straight to reach his destination; he must have the cognitive development to know left and right to make his turns; and he must have the communication skills to understand that it's time to go to the gym or "It's raining today and we can't go out so we'll go to the gym instead." Thus all of the areas inter-relate, and work on one skill or one activity should include work in several areas at the same time.

4. Provisions for Routine and Variety. The curriculum must also provide for a variety of experiences for the child. The teacher must remember that many experiences the normal child learns from may have been missed by the deaf-blind child; perhaps he was left at home or if he went along, no one was able to communicate what was happening to him. However, there should also be provisions for routine. The deaf-blind child learns many skills of daily living through the routines of his home and school.

5. Provisions for Behavioral Problems. Many deaf-blind children develop behaviors such as biting or pinching (themselves or others) when frustrated. By knowing the child and the intended activities the teacher can anticipate some of these behavior problems and can make plans so that discipline is consistent. In some cases a time-out room may be needed and extra time must be allowed for in scheduling.

6. Provisions for Reinforcement. The curriculum must also provide for the child's appropriate behaviors and his attempts to learn new skills to be rewarded. This may be in the form of tokens or activities the child enjoys for higher level children or it may be in the form of a potato chip or other primary reinforcer for a lower functioning child. It may also mean pairing something you want to use as a reinforcer (praise, a pat) with something the child already likes (potato chip, ride on a rocking horse) so that in the future he will come to accept praise or a pat as a reward.

7. Provisions for On-Going and Periodic Re-Evaluation. The curriculum is a plan for the child's education. As the child changes and as his needs and interests change, his educational plan must also change. And, in order to recognize the need for changing the plan, the child's progress and needs must be re-evaluated as a part of daily planning and periodically, they must be re-evaluated to take another look at the total picture of the child.

So, what resources does a teacher of deaf-blind children have to help in planning? Currently, there are evaluation teams available to evaluate the needs and abilities of a deaf-blind child. These teams are available through the regional center for services to deaf-blind children. We also have specialists and consultants who can be called upon from various professions to help us in our evaluations (ophthalmologists, audiologists, physical therapists, etc.) There are existing curriculum guides, developmental checklists, and behavior scales that can give us an idea of normal development in the various areas such as normal developmental sequences, examples of what should come next, and activities that may promote such learning.

However, existing materials must be used and adapted to fit the child's current interests, his chronological age and near future needs, and the experiential level of the child. Most materials will have to be more concrete and real and if the child has never experienced an activity, that's the place to start--not on an abstract level. Existing curriculum guides cannot tell you "Do this today and do that tomorrow and the child will move to the next higher developmental level." They were not intended as a panacea. However, they can serve as valuable resources to give another perspective on the various areas of development, as guides to the next step, and as a source of possible activities.

Now you know what I mean by a curriculum and some of the resources available. But how do we go about this process of developing a curriculum? What do we do first?

1. List the child's skills at present. Use behavioral terms--something that can be observed and measured.
2. List the skills needed by the child. Set priorities dependent on the total child and his near future (next 2-4 years).
3. State your objectives in behavioral terms.
4. List a variety of activities and experiences you think would be interesting to the child and helpful in achieving the objectives. A card file of activities with cross references would be a helpful resource for any teacher to build. Remember that real materials and experiences are especially helpful and multisensory materials are likely to be more appealing and useful than materials that utilize only one sense.
5. Set up a schedule for the class showing who does what and when both in terms of classroom staff and children. The schedule should show routines and should also be flexible enough to allow for change dependent on staff absences, activities and field trips, and the child's immediate needs.
6. Organize activities in sequence. A unit approach or a theme for the week is often helpful in giving activities added meaning. For example a

counting activity might one day be counting enough pennies (nickles..) to go to the classroom store (real store - to buy a birthday present for a classmate). Another day it might be counting enough construction paper strips for each child to have one (two) for the afternoon art activity.

7. *Evaluate. Evaluation should be made in terms of the child's progress and needs and in terms of the effectiveness of the activities, methods, and materials used.*

I have tried to take a curriculum apart for you and hold each piece to the light--not for light gazing or flicking--but to focus attention on each part. Now I'd like to put it back together. A curriculum is the total educational program plan for a significant human being, and the most important part of the plan is the child for whom the plan is made.

"PARENT INVOLVEMENT IN DEAF-BLIND PROGRAMS"

Phyllis M. Harper
A.G. Bell Association

I am delighted to have this opportunity to participate in a workshop on services for deaf-blind children. My area of concern this morning is, "Parent Involvement in Deaf-Blind Programs".

I come to this workshop with almost 24 years of personal parenting experience. Included among these are 20 years of parenting a handicapped son.

For 15 years, my experience as a teacher of the deaf in a public day class program and a state residential school for the deaf was steeped in activities involving hosts of parents who functioned in a variety of ways.

For 12 summers, I have served as a teacher for parents during a one week institute held for parents and their pre-school hearing impaired children.

As an educational consultant for the A.G. Bell Association for the Deaf, I have had involvement with a number of parent groups throughout the country for the past 5 years.

I give this background, not to impress you with credentials; but to convey to you the fact that I have listened to and shared with hundreds of parents of handicapped children over the past 20 years. Consequently, I have arrived at some very strong and fundamental convictions. One conviction is that while parents are universal, each is very special in his or her own way. Identifying and understanding that specialty is often the key that unlocks the door for the beginning of successful parent involvement.

During the 1950's, the needs of the handicapped became a national concern. Parent organizations brought to the attention of Congress and the White House, the failure of local agencies, state education agencies and private schools to meet the needs of these children. The reasons for this crisis were: (1) better medical care (decrease in mortality and prolongation of life), (2) families expected better and greater achievement of their handicapped child in order for that child to attain self-sufficiency, and (3) society was starting to become more acceptable and opened up wider opportunities for the employment of the handicapped.

Today, PARENT INVOLVEMENT for one reason or another is a must in programs for exceptional children. The rationale for program involvement of parents usually comes from one of the following:

1). Popularity--other programs have a parent group. It works for everyone else so its got to be good for us.

2). Program structure calls for parent involvement...letters written, workshops held, etc., parents just aren't interested--don't attend.

3). Parental needs/assessment--parents of a (kind of handicap) child need to learn this and so. . .

4). Pressure group--"they" will listen to parents--legislative clout.

There is value of merit in each rationale. The reason for parent involvement is usually based on more than one factor. However, while any given parent program may have a framework of specific techniques, meaningful activities and/or program goals, success does not automatically follow. Knowledge of every technique, activity and goal in existence without some understanding of parents and parental needs dead ends. Understanding goes far beyond the limitations of structure. Successful parent involvement programs will have identifiable missions, philosophies that are parentally fundamental, and a program oriented in terms of their particular parents and their particular programs. What is your Parent Involvement Quotient (P.I.Q.)?

Parent involvement in deaf-blind programs, like in any other program, can be successful contingent upon professional integrity, truly meeting parental needs, permitting honest give and take between staff and parents, and encouraging parent leadership.

We as professionals working with parents must understand each parent with whom we work. There is the parent who is special in that:

--She can't write so no letters come to the teacher or the child
--He really can't cope with having fathered a handicapped child
--He or she really knows almost as much as the teacher
--She really is an expert on her own child
--Others

Just recently, Stanley D. Klein, Ph.D., Editor-in-Chief, "The Exceptional Parent" magazine offered these comments to a group session dealing with a topic on parents. He said that parents are entitled to be a team member and to communication from all disciplines. This, he feels, results in mutual learning on the part of the professional and this is what parents want and in some cases will demand if denied them. Other meaningful points suggested by Dr. Klein were:

1). Listen to family needs.
2). What the parents think may not coincide with what you think.
3). The life of the parents is other than just that of the parent and this child.
4). Many parental concerns have nothing to do with the child.
5). Be practical and understandable as professionals...provide follow-up needs.
6). We're sometimes asked to do things we cannot do. How do we handle professional inadequacy?
7). Find out where the parent really is? What is his entry level? As professionals, too often we merely look and make the decisions.

PARENT INVOLVEMENT--THE TEACHER'S ROLES

In our attempts at discussing the TODAY of the exceptional child, perhaps two key people (who themselves must in turn be nourished by many other disciplines) hold the potential for determining the child's tomorrow.

Parents and Teachers	*Basically, it is they who nurture, work, shape, influence and educate the child*

Through motor, play, self-help, social, intellectual and environmental growth and development, the teacher guides the child through perceptual, conceptual and cognitive maturation. This, you well know, is a very slow process for the deaf-blind child in particular. The parent must be involved if the child is to develop maximally. The teacher has a great responsibility to the parent, in my opinion, in terms of expectation and delivery. In his book, The Parent Teacher Partnership, Ray H. Barsch has included a chapter on "The Expectations of the Parent", "The Parent As A Perceiver", "The Parent As A Learner" and "The Parent As A Teacher". Each one of these chapters is well worth the reading.

Whatever role a teacher is enacting at a given time, he or she must function with sensitivity in terms of the parents' relationship to the whole. There must be sensitivity to what point on a continuum you are dealing with a particular parent. There must be sensitivity to the parent's need for proper professional evaluation with proportional importance given to the parent's emotional needs.

In order to be an effective deliverer, the teacher needs the support and services and cooperation of the entire educational staff as well as ancillary service people.

There are many people out there who are giving advice to the parents of the children with whom you work:

Pediatrician
Ophthalmologist
Otologist
Audiologist
Psychologist
Physiotherapist
Speech & Language Therapist
Theologian
Social Worker
Directors of Special Education
Neighbors
Family

In addition to utilizing the services of these people appropriately, the teacher needs to help parents remember that:

> *'Never one thing and seldom one person can make for success. It takes a number of them merging into one perfect whole. . . . . ."*

At this point, I would like to attach and briefly comment on a poem called, "A Mothers' and Fathers' Litany". This poem incorporates the aims and ideals that most parents strive toward. The refrain following the aims and ideals--"May love and understanding help me, teach me, lead me, and/or guide me" can be thought of as an invocation to educators and the above mentioned people who need to be refreshed and could perhaps think of these also as professional to parent aims and ideals.

LITANY FOR PARENTS SUMMARIZES IDEALS

By Gladys Bevins

Each year the author reprints in this column what began as an attempt on her part to gather together, in one space, the aims and ideals that most parents strive toward in bringing up their children. In the end, the article took the form of:

"A MOTHERS' AND FATHERS' LITANY"

To respect my children
and in return
To be worthy of their respect
May Love and Understanding
help me.

To praise much and blame little,
To emphasize their success
And to minimize their failures
May Love and Understanding
teach me.

To make no promise
to my children
That I cannot keep
May Love and Understanding
help me.

To have unbounded faith
in my children
To be loyal to them both
at home and abroad
May Love and Understanding
lead me.

To allow them the dignity of
their own personalities,
Not trying to make them over
to my own desire
May Love and Understanding
help me.

To be cheerful and ready to laugh
Because children love laughter
as they love sunshine
May Love and Understanding
help me.

To have infinite patience
with my children,
And to make allowances for them,
Because they have
so much to learn
And I myself am not so very
wise
May Love and Understanding
help me.

To protect my children
from my own nerves,
Ill temper, personal prejudice,
pessimism and fears
May Love and Understanding
lead me.

To help them to choose
The life work they are
best fitted for,
Instead of gratifying
through them
My personal ambition
May Love and Understanding
lead me.

To reserve time and fresh energy
for my children,
So that I can be their close and
interested friend
May Love and Understanding
help me.

To fit my children
to meet life and people
Bravely, honestly
and independently
May Love and Understanding
help me.

To give my children
freedom, but
To teach them how to use
that freedom,
So they will not confuse
liberty with license
May Love and Understanding
guide me.

To show my warm love
for my children
As well as conscientiously
care for them
May Love and Understanding
lead me.

To manage them with
intelligence and affection
And not by punishment,
condemnation,
fear, faultfinding and nagging
May Love and Understanding
help me.

To guide my children
instead of driving them,
To direct their energy instead
of repressing it
To try to understand my children
Instead of sitting in judgement
on them
And through all misdemeanors,
both trivial and serious,
To love them steadfastly
May Love and Understanding
help me.

New York Daily News
May, 1963

DEAF-BLIND PROGRAMS: PARENT INVOLVEMENT

In order to present you with current and meaningful data on parent involvement in deaf-blind programs, I wrote to a number of programs requesting relevant information. The respondees include a variety of types of programs:

- Deaf-Blind Infant Stimulation
- Regional Residential (6 states)
- Hospitalized
- Preschool
- Home
- Day Class
- Day School
- State Residential
- Correspondence Learning Program

Rather than describe these 29 or 30 programs which so kindly replied making comments on the degree and/or nature of parent involvement in their program, that which they have found particularly successful and that which they found should be avoided, I elected to do the following. I categorized from all of the letters received and listed by classification: 1). Those reasons why parent involvement was difficult; 2). If the problem was solved, how?; 3). Aspects of a particular program that was found to be beneficial to the writer. I've called this category, Other Helpful Hints. Please note that the difficulties and solutions are numbered to correspond.

Reasons for Difficulty

1. The parents of the children in the program are scattered over the largest state east of the Mississippi River.
2. Working and/or single parent
3. The inability to carry out some aspect of the program; for example, eating because the parent continues to feed the child even though he is making progress at school feeding himself
4. Parents reside throughout the state and visit only when the child is picked up for vacation.
5. The children are hospitalized because of limited or no local facilities for deaf-blind in their rural communities. The homes are quite some distance from the facility.
6. A deaf-blind child enrolled in a day program is in need of achieving a particular goal--i.e., feeding or ambulation.

Solutions

1. Conferences and the creation of the position of parent educator. The person who fills this position will act as liaison on a continuing basis between the parents and each child. In addition, this person will carry out short institutes for parents in the school and, when possible, in local communities throughout the state.

2. A log is kept on each child and parents are informed informally of what is happening. A formal monthly report outlining areas of progress and suggesting carry-over activities is also sent home.

3. Occurences are rare and happen with the same parents.

4. To hold informal conferences scheduled on demand and a two-day parent institute at the end of the year. This format was changed as follows with parents quite excited about the change and they encourage continuation:
   a. Formal parent conference upon initial student admission
   b. Informal conference when picking up child for home visits
   Parent mailbox available for further convenience
   c. Monthly one-day overnight workshop. This involves approximately two to four families (parent and siblings) a month. The families become directly involved in the student activities, attend teacher and houseparent conferences, in-service training, "rap" sessions, etc. Each parent attends one or perhaps two of these during the school year.
   d. A two-day parent conference at the close of the school year
   e. Monthly parent newsletter

5. Week-end training sessions--1 set of parents per week (usually Sunday) various times during the year. The staff works with the parent and child for the entire day demonstrating techniques and answering questions. Parents participate in activities actually teaching with the assistance of the staff.

6. The temporary placement of the child in the residential program with intensive work (6:30 a.m. to 8:30 p.m.) on a particular goal being fundamental. Secondarily, the parents are given a respite period from a child who is often a demanding, every day, year in year out job.

Other Helpful Hints

1. Since my parents must "live" with their children, I have found it helpful to be in an encouragement position--supportive rather than demanding. Educating and instructing them in ways to help their children and themselves, but not "telling them what to do". This makes for more relaxed and happy people.

2. Parents are encouraged to visit as often as possible.

3. I visit them periodically and telephone frequently. I also write weekly letters.

4. Give parents simple, helpful, informative literature presented in a pictorial fashion which is appealing.

5. Home visits are most important, I feel.

6. Where program is in a regular school, parents should get involved in P.T.A. (besides their own particular parent group for a particular handicap). Parents of our deaf-blind can learn from P.T.A. groups and P.T.A. groups can learn from them. This naturally leads to understanding, etc.

7. All parents (6) are interested in the children's education and progress. The classroom teacher and houseparent discuss fully with each parent, the program outline for each child. This has proven very helpful in carrying over the school program into the home.

8. Classes in manual communication are attended by parents. This insures the use of T.C. at home as well as at school resulting in better interaction between parents and their children.

9. Parents and other family members are involved in counseling. The results: success in helping individual family members gain a better understanding as to how to relate appropriately and be rehabilitation oriented with their deaf-blind family member.

10. Program hosted conference for parents of deaf-blind children.

11. A mother's Club developed by a specialized social service agency. The group meets regularly. It allows for parent interaction and expression of feeling about the handicaps with which they must deal. This group plans seasonal activities and celebrations for the classes. This program feels that it is essential that a trained social agency or social worker be involved with the parents on a full-time basis.

12. As a child begins to develop skills and abilities that did not previously exist, the parent becomes encouraged and more involved with the school.

13. Parent observations of the class in action. The observation is followed by a conference with the educational team directly involved with the education of the child. The parents are asked to make suggestions. The teachers inform parents as to how they can cooperate by following through on current classroom goals.

14. The family is included by scheduling occasional "leaves" for the child. The child returns home for a short period (a month perhaps). The teacher accompanies the child home and spends a day with the family teaching them to adapt the home situation so the child may use skills he has developed in the program.

15. Parent involvement and cooperation are agreed upon prior to the child's admittance into the program. The parents sign a contract of committment and agreement which has resulted in good response from the parents. The more structured limits are more helpful to operate under...i.e., the social worker conferences are contracted in number so that the parent doesn't have to worry about scheduling one.

16. Mothers spending one day a month working in the classroom as "teacher aides"--working sometimes with their own child and sometimes with other children. The teacher provides the lesson plan. The mothers do the teaching. The progress has been beneficial for both teachers and mothers.

17. *Parent/teacher workshops conducted by psychologist consultants*

18. *State Parent Organizations publish newsletters and sponsor workshops. They then purchase items for the program.*

19. *Parent's Day initiated for May*

20. *Quarterly progress reports and daily communication through Home-School Notebooks*

21. *Parents should be allowed to communicate informally and in detail with all levels of cottage and nursing staff as well as with educational staff.*

22. *Parents are encouraged to involve themselves in whatever way they feel is appropriate for their needs. Parents are encouraged to do this while working as volunteers with the educational staff or during visiting hours at the convenience of the parent.*

23. *Notebook exchange of information is very popular with both parents and teachers. The teacher keeps a notebook for each child placing in it important happenings of the week. The parent reads the report and writes in about the child's week-end at home before returning the notebook to school.*

24. *Summer Nursery Program--a one-week program for mother and child. Parent classes are held whereby the mother is helped socially, mentally, etc., to understand her problem.*

25. *Video tapes of activities for parents with child involvement for demonstration and instructional purposes.*

26. *Many pictures have been taken of the children in their various activities and mailed to parents. Short anecdotal commentaries on the area, goal, level of achievement and progress of the child accompanies the picture.*

27. *Special Inservice--Parents are included in inservices for staff which have relevance to them.*

28. *This past year we were fortunate in establishing a foster program wherein three deaf-blind residents are placed with foster parents hired by the state. The children attend school during the day and return to their foster home for the evening in a family atmosphere.*

29. *Presently working on a seminar for parents of deaf-blind students in the hope of getting more parent involvement. This is just in the planning stage with the initial contact being a questionnaire to find out what parents feel are the most important things they need to know to meet their child's need.*

30. *Parent's enrollment in the John Tracy Clinic Correspondence Learning Program for Parents of Preschool Deaf-Blind Children. The Correspondence Learning Program, available in English and Spanish, consists of twelve basic lessons covering parent attitudes and information; and a series of*

Learning Steps in eight areas of development. Through initial information provided by the parent, an individual lesson is assembled to meet the needs of each family. Depending on the ability and age of each child, and the amount of time parents can devote to the lessons, it takes one or two years to complete the program.

PROGRAMS THAT RESPONDED

Academy for the Blind, Dept. of Education, Macon, Ga.

Albert Schweitzer School, San Diego City Schools, San Diego, Ca.

Alhambra City Schools, Granada School, Alhambra, Ca.

Arizona State School for the Deaf and the Blind, Tuscon, Arizona

Arkansas Enterprises for the Blind, Inc., Little Rock, Arkansas

Arlington Developmental Center, Arlington, Tennessee

Braille and Sight Saving School, Fairbault, Minnesota

Bureau for Education of Visually Handicapped, Board of Education, City of New York, Brooklyn, N.Y.

Brainerd State Hospital, Brainerd, Minnesota

Children's Convalescent Hospital, Inc., Bethany, Oklahoma

Children's Memorial Hospital, Oklahoma City, Oklahoma

Children's Rehabilitation Institute, Univ. of Nebraska, Omaha, Neb.

Colorado School for the Deaf and the Blind, Colorado Springs, Colorado

East San Gabriel Valley School for Multi-Handicapped Children, Glendora, Ca.

Grafton State School, Grafton, North Dakota

Hannibal Regional Diagnostic Clinic for Mental Retardation, Hannibal, Mo.

Jaycee Evaluation Center, Ellisville State School, Ellisville, Miss.

John Tracy Clinic, Los Angeles, California

Kansas Neurologic Institute, Topeka, Kansas

Kauikeolani Children's Hospital, Honolulu, Hawaii

Laconia State School and Training Center, Laconia, New Hampshire

Los Lunas Hospital and Training School, Los Lunas, New Mexico

Meeting Street School, Providence, Rhode Island

Michigan School for the Blind, Lansing, Michigan

New Mexico Programs for Deaf-Blind Children, University of New Mexico, Albuquerque, New Mexico

Overbrook School for the Blind, Philadelphia, Pa.

Southbury Training School, Southbury, Conn.

Topeka Public Schools, Topeka, Kansas

Utah State Training School, American Fork, Utah

Vermont Association for the Crippled, Rutland, Vermont

Woodward State Hospital School, Woodward, Iowa

PARENT WORKSHOPS

Dr. Katherine I. Best
Boston College

In the process of preparing for this conference, I reviewed many of the oft-cited traditional references dealing with the parents of the handicapped or, if you will, the exceptional child and ended my review by rejecting them and deciding to launch out on my own. Of course I am, as the poet says, part of every man I ever knew, so you will get the references subconsciously, however I may try to avoid it.

There has developed a considerable body of literature in recent years concerned with ways of working with parents. Nearly all of the regional centers for services to deaf-blind children have had conferences dealing with parents or for parents. Both the Mountain-Plains region and the Southwest Central region are currently engaged in planning parent meetings and most of the state consultants have held small parent conferences of one kind or another. The deaf-blind centers are not alone in this endeavor however, and we seem at last to be moving into the era of the parent. I say "at last" because, if you have been in special education or in regular education as long as I have, you know that we have passed through many years in which parents were thought to be undesirables insofar as the care and treatment of their children were concerned. Historically, of course, this is understandable; for hundreds of years the teacher was one of the few people in the community with "book learning" and, as such, did know a few things the "average" parent did not know. A tradition of school vs. home development with mother and father bowing to the demands of teacher without complaint. Those of us in my generation still approach the schoolhouse with some awe when our own children are involved - no matter how many degrees we possess or how much further we may have carried our own education and experience than the teacher before whom we timidly present ourselves.

Small wonder then, that many parents of children who have physical or educational problems come equipped with a whole set of fears, anxieties and inferiority feelings. We as professionals have not been sympathetic toward the plight of the parent either. I recently read an enlightening article (Michaelis, 1973) by the mother of a Down's Syndrome child who, herself, is a professor of Special Education preparing teachers to work with mentally retarded children. In the article she discusses the many times she has been hurt by others, particularly teachers and medical personnel because she was "just a mother" and as such could not hope to know or understand anything about her son. The title of the piece, by the way, is Chip on My Shoulder and I think it should be must reading for all of us.

All of this is apropos of my assigned topic "Parent Workshops." We have been on quite a trip to get to it but here we are at last. And where is it that we are? May I suggest to you that we have not really had any parent workshops or if we have, the news has not reached me or anyone else I know. We have, with all good intent, tried to organize meetings for parents *and they have politely accepted them for the most part. Some brave and insightful few like Mrs. Susan Mouchka from California have stood up and pointed an accusing finger at the professional pool and have told us in no uncertain terms to stop talking to each other and do something with parents to help them become more competent in their roles as first and natural educators of their children. Notice that I said "with parents" and not "to" or "for" them. Therein lies the difference.*

What can we do with parents and how can we go about it? It is not easy to answer this but the process can be so exciting and it can bring all of us together and lead us along the road towards greater self-actualization for our children.

First of all, we must accept the premise that most parents really want to help their children and that they are intelligent enough to do so. We often employ untrained young people to serve as aides or instructional assistants in our programs but we shy away from providing parents with the same skills we so readily develop in our aides. Secondly, we must become more comfortable with techniques designed to raise our consciousness of self and others whether these are called by the familiar terms "T group", "sensitivity training", "group dynamics", "interpersonal relations" or by some yet to be coined psychologism. If we are to work with parents, we must be willing to give some of our ego away, to lower our defenses to meet with them openly and without fear. One of the problems we professionals have is that we never know as much as we would like to think we do and we are always afraid that the parents will find us out. Until we can share learning with the mothers and fathers of our children, our own self-imposed caste system works against successful parent projects. This is the reason that parent workshops should be organized and conducted by non-teachers. Social workers, therapists, or community health nurses are ideal. A committee composed of these people plus representative parents could plan and produce a worthwhile program in which teachers could perform as they are assigned, but would not be stars of the show.

Let me tell you why I feel this way. No matter what we do to correct the image, most people see teachers as judgmental figures. In our youth, teachers saw us for what we were--not quite up to perfection and they judged, graded us and put us in the bins set out for us. Now, they judge us on our adequacy as procreators and parents and we rarely live up to their expectations. When my daughter was in school, I always went to parent conferences with a feeling of utter humility, and I am not meek and humble of heart by nature, but she was the best that I could do and I always feared that I had not done as well as I was expected to do. Most people feel just as I did; not all react in the same manner but all feel naked and uncomfortable before Teacher and this does not make for an open relationship. Some teachers are gifted in the art of humanity and can deal with this problem effectively; some cannot and many of our teachers in deaf-blind education are so young as to need much practice before they learn how to use their own good kind selves. This is not to criticize them - we all began in that way and many of us have not progressed very far beyond that point. Gray hair and excess poundage do not an expert in people make.

Nurses and social workers wear a different aura. They are supposed to help people, not judge them. I took part in an evaluation of a deaf-blind program recently which was being conducted by a state agency and we met with several parents who spoke glowingly of the social worker. They remarked on the fact that she had been in their homes, knew their problems, had listened to their secrets, calmed their fears and mediated for them with teachers when the schools' demands seemed unrealistic. They made a point of the fact that the teachers seemed to come and go with the mobility we see among professionals today while she, the social worker, was the thread which ran so true. She was the program to these parents. Now, the community nurse can play that same role. She is really an advocate for the parents and the child. Note that the first things the nurse learns to ask in a home visit are, "What do you want for your child?", "What would you like him to learn?", "What would help to make him fit in better at home?", "What would make your life a little easier?".

We, as teachers, forget to do that. We set our objectives and then we tell the parents what to do to carry out the program at home. We really are trying to make our lives easier at school, to make the child fit in better at school, to make the child learn what we think is best. We have begun the educational tug of war. We have forgotten whose child he is as teachers have been doing since it all began.

Well, if all of this is suspect, what should we be doing if parent workshops are to be beneficial to child, parent, teacher, to all concerned? I will outline some suggestions.

1. Choose a non-teaching person to head the committee planning the workshop. Try and pick someone already known to the parents.
2. Survey the parents' needs and design the workshop around these concerns.
3. Organize the committee to represent all concerned groups. There should be parents, teachers, administrators, medical personnel, siblings, representatives of community agencies working with handicapped persons and any interested members of the community who express a desire to serve.
4. Plan different types of workshops.
   a. Parent to parent
   b. Small local meetings
   c. Large regional meetings
   d. Informal meetings
   e. Action meetings
   f. College courses for credit
   g. Materials meetings
   h. Media meetings
5. Provide an opportunity for participation by all parents at the meeting. Passive listening to papers does not motivate learning.
6. Experiment with an invisible workshop using cassettes which the parents receive on a regular basis and listen to in their own home.
7. Give the parents something concrete to take home from the conference; a manual, charts, pictures, a device to try out, something to use and report on at the next meeting.
8. Have a next meeting already scheduled so that this will not be a one shot deal. Arrange for these people who have interacted to meet soon again so that strong relationships can develop.

9. *Evaluate the meeting. Have reaction sheets, interviews with parents; ask for suggestions for improvement.*
10. *Provide adequate time for socialization during and after the workshop. Make it fun as well as stimulating.*

There are some other ideas worth noting which will help to make the workshop an occasion to be remembered. If possible any expenses incurred by the parents should be reimbursed. If workshops are planned well in advance this can be budgeted and certainly adds to the relaxed atmosphere which is needed. The parents who are invited should also be housed in comfortable accommodations but not in any place which is so far beyond their experience as to make them uneasy. One parent told me that for her child's evaluation she and her husband stayed in such a luxurious place that she worried all the time that they might dirty the rug or scratch the furniture and that she did not know what to do with the staff and wished she were home for the whole period. She certainly could not relax and be herself in such a situation.

Parents should be allowed to show how competent they are or can be. If any demonstrations are to be held, it is parents who should be the demonstrators. They should be trained beforehand so that they will be successful, thus encouraging other parents to try their skill at home. Teachers should take a backseat and encourage parents to show off a bit.

Parents are in particular need of psychic nurture. They need the equivalent of the hugging, fondling, and kissing we give children. Children's personalities grow with knowledge that they are loved. The parents of handicapped children are bruised; they have not fallen and skinned their knee, they have fallen and skinned their innermost selves and any good parent workshop should be planned to give them a feeling of being loved in the truest sense of the word. It should salute their accomplishments, applaud their sacrifices and equip them to solve some of their problems.

One of the best ways to do this is to get them involved in real, tangible activities such as fund raising, building furniture or remodelling a classroom, building a playground area - anything which brings people together to work for a common goal, that lets them do something they do well, and do it for their children.

If technical areas such as language, hearing, speech, vision, or mobility are to be the subject of the workshop, then experts should be brought in to provide information for the parents. The best consultant available should be employed. No one person can be totally competent in all disciplines and parents deserve the best there is. Caution should be exercised to limit the focus of the meeting as too much information will frustrate and disturb the already overworked parent. Follow-up should be local.

Regularly scheduled workshops dealing with one theme such as movement are of great value. If the professional staff learns and participates right along with the parents a feeling of cameraderie, of shared experience develops and the hidden barriers begin to crumble. May I point out that just going to a workshop once a month gives parents a chance to get out of the house to talk to other people who have many of the same problems. Which brings me to a totally different kind of workshop, one run by parents for parents with no teacher-types around. Perhaps we may serve as technical advisors when asked, but the parents should run the show. Most parent *organized groups and presentations which I have attended have been better than those planned by professionals. If possible, we should light the spark to get parent groups started on such endeavors.*

I suppose that parent therapy groups could be termed "workshops" if we stretch a point. Many programs make attendance at these weekly sessions a condition of the child's admission to and continuation in the program. Those that I am familiar with are extremely successful. They are quite painful at first but once the initial wounds are healed, most people find them to be of great benefit. They help parents to deal with guilt feelings, with feelings of resentment toward their child and others who have escaped such a burden and, in general, help parents to keep going from day to day in much healthier fashion mentally. They are usually conducted by a psychiatric social worker, community health nurse or a psychiatrist. In all cases it is desirable for the group leader to be familiar with the children of the parents in the group.

Finally, it is interesting to consider that the parent workshop is a phenomenon related quite closely to deaf-blind education and, as such, is still a pioneering venture. It well may be that we are pushing back the frontier and leading the way for the rest of education in this regard. We need to keep refining our techniques and evaluating our results so that we will have documented proof that we have developed an educational concept well worth replicating by all branches of education.

Michaelis, Carol. "Chip on My Shoulder", Exceptional Parent, 4, 1974, 30-35.

PROGRAM OUTREACH

SERVICES FOR DEAF-BLIND CHILDREN IN RURAL AREAS

Jerry Dominguez
Albuquerque, New Mexico

In 1970, a pilot study was undertaken in the state of New Mexico to obtain a list of names of possible deaf-blind children. The task was undertaken by June Horsley, of the Regional Office, and Gay Alford, a consultant from the state. The initial plan called for the two resource people to meet with local agencies, hospitals, medical personnel, the welfare department, health department, state institutions and any other resource in the state which might come in contact with handicapped children. This initial screening resulted in a list of 107 suspected deaf-blind children in the state.

The finding of this large suspected population of deaf-blind children allowed funds to be made available through the existing deaf-blind grant in New Mexico to hire two Outreach workers. The Outreach workers were then delegated to contact all the agencies that had made referrals to the resource people involved in the pilot study. They also had the responsibility of contacting the families of these children to determine if the children were appropriate for deaf-blind services. This determination would include basic screening in the home and appropriate referral to an audiologist and ophthalmologist. The cost of these evaluations was absorbed by C.C.S. at the local level. The Outreach person also reviewed the child's records to obtain any other current evaluation that might be available. Due to the number of children involved, this task was slow, laborious and expensive.

The state had been divided into North and South districts. Each of the two Outreach workers was assigned the responsibility of obtaining all information available on the children in his district.

The list was gradually reduced as the Outreach workers determined some of the children to be ineligible; these children were referred to local agencies who could meet their needs. However, many children still remained questionable. Due to the expense involved and the limited professional resources available in the state, the necessary extensive workups were obtained slowly. The children who were still unclassified were maintained as suspected deaf-blind children until further evaluation enabled them to be referred to appropriate agencies. For the children that remained as identified deaf-blind children, a program was developed to provide these services at home, or through a local agency when available.

The following program was developed for those deaf-blind children who were at home and for whom no program was available because of their rural location. This "at home" program is conducted by the family with the assistance of the Outreach person who makes monthly contacts with these families, works with the child and provides necessary information to the family.

"Developing an 'At Home' Program For Parents of Deaf-Blind Children"

Parent education and interaction play a vital role in the education and development of a deaf-blind child. A well-balanced and effective program will utilize the parents in every aspect of child stimulation.

In developing an "at home" program for deaf-blind children to be conducted by the parents, the therapist must first have all the information available on both the child and the family.

Upon referral, the therapist will seek out all medical information available on a particular child. He must begin to understand the past and current family dynamics. Before the parents are approached, the therapist should have all the information that he has obtained ready to be shared with the parents.

Initial contacts are designed to afford the parents an opportunity to have your program explained. This opportunity also affords the therapist an opportunity to observe the extent of involvement of the parents in interacting with the child. This time is also utilized in helping to determine to what extent the parents may be willing and available to interact with the child.

After the initial contact, the therapist then begins to establish the home management program for the family. Additional information is obtained from the parents. This information should include the child's present functioning at the home, what the parents have been doing to stimulate the child in aiding his development, and what the parents feel the child's current needs may be.

Oftentimes the child has attended various programs and/or has been seen by numerous professionals. This information is not always available from the source the therapist had available to him. Only the parents can offer this information or can refer you to the proper program and professional. This information is helpful to the therapist in that it will help eliminate duplication of evaluational services and treatment.

After the initial meeting and all information has been gathered and analyzed, the therapist must then proceed and obtain any information which is needed or is not current. This may include current or new audiological, ophthalmological, orthopedical, neurological, physical, psychological, or any other evaluational service which will provide the therapist and parents with the necessary information to determine the child's current functioning level. The evaluation services mentioned above may either be obtained at the local level, if these professional services are available, or could be performed at your home base where these professionals should be available. The significance of having all the current information available on the child is that for a program to be effective, we must not further handicap the child by failing to understand his current needs and functioning level which have been made available through current or on-going evaluations.

The majority of our deaf-blind children are slow developers. This is especially true in children who are at home and have not had an opportunity to attend any regular programs or have not had any professional involvement. The home management program utilized with our children is designed with the use of developmental scales which assess the child in the areas of Socialization, Daily Living Skills, Motor, Perception, and Language. We utilize the AZUSA scales for our assessment. The above information is obtained either through the reports available from the evaluations or the parents. What information is not available or is questionable, the therapist will allow the child to perform the questionable developmental milestones.

The above scales are categorized into four individual areas within the five major goals, which in turn are broken down into seven individual profile scores. An example is the major goal area of Daily Living Skills with the four individual categories being 2.1, Undressing and dressing; 2.2, Washing hands and face; 2.3, Eating solid and liquid foods, using utensils and drinking cups; and, 2.4, Toileting. Each category is then divided into the seven profile scores which dictate a developmental milestone.

After the child is assessed at a particular level, activities are suggested and demonstrated to the parents. An example of stimulating a child in area 2.1, dressing and undressing, from a profile score of three to one of four might include the following suggestions:

1. Give him a feeling of independence. Structure his clothing so that it takes very little assistance for him to dress himself. Have his clothes be bigger than usual to allow for ease in dressing and undressing.
2. Work on the relationship of the swimsuit and water. He knows that he must undress to put on the suit. And see if he will initiate undressing (pulling at his pants, etc.).
3. Play dress-up games. Have a box of clothing, let him choose an article, then manipulate it in any way he desires. It is important to have many different textures of material and styles for him to play with.

The above procedure is followed for all five major goal areas in stimulating a child to advance from one developmental milestone to the next. Changes in the program are made when it is apparent that the child has progressed from one level to the next. An additional developmental assessment is made every six months to determine if any adjustments need to be made in the program.

The significance of a developmental assessment in programming is that you will consistently be at the child's level where you can suggest appropriate activities to advance the child from one level to the next. Your short-term and long-term objectives are spelled out for both you and the parents. The AZUSA scales are designed so that when a child obtains profile scores of 6's across the board, he is developmentally at a stage where he would meet the standards of most educational or vocational programs.

In developing an "at home" program for parents, the therapist must utilize the team approach. The team should include the Physical Therapist, Speech Therapist, Occupational Therapist, Nutritionist, Neurologist, Audiologist, Ophthalmologist, Pediatrician, and any other professional person that would have contact with the child. The therapist should utilize the professional staff available by consulting with them and conveying the information *back to the parents at the home. When the situation dictates an expertise that the therapist is not formally trained in, he should consult with the team.*

Counseling is the key; involvement of the parents will determine success of your program. You must understand the family dynamics and leave no stone unturned, no professional untouched. You are dealing with a sensory, mentally deprived child whose environment is confused or uncertain as to his potential. The tools are limited and lables run free. Our main concern is not the child's M.A., but his performance level, his behavior, and mannerisms. We must remember to stimulate the child at his level with our short-term objective in focus and our long-term objectives in mind.

It is our intention to be supportive as well as constructive in aiding families of deaf-blind children.

In counseling parents of sensory-deprived, slow-developing children, the parent consultant must be both consistent and flexible. Consistent in that he does not confuse the parents or the child. Flexible in that he is willing to make the necessary adjustments in his program and is prepared to adjust to any changes in the family dynamics.

The amount of travel involved made it difficult for the worker to provide enough client contact hours and to be available to train parents; and the duties of the Outreach person had to be increased in later phases of the program.

The Outreach program focused on local resources, whenever possible, for serving the deaf-blind children. Inservice training was supplied to the local agency which provided a service. Agency personnel were brought into other components of the program for additional training. This training program enabled deaf-blind children to take advantage of local resources. In areas where no program was available, the Outreach program tried to increase home visits.

There are many difficulties in establishing and maintaining an active and effective Outreach program. The cost involved is high because of the amount of time that is spent traveling. Over 50% of the average work week is spent driving. This necessity cuts down on client contact hours. Another transportation problem arises when university vehicles are not available and other means have to be worked out.

Some other considerations are: geographical location of the children; cultural and language differences; the number of referrals that must be followed through; coordinating with numerous agencies; differences in parental attitudes; obtaining financial support for meaningful evaluations; and transportation for both parents and children.

Further difficulties include: carry-over programs by the parents or follow-through by the local agency; and obtaining appropriate materials for the home and/or the agency program.

Staff moral also presents difficulties. It is hard to spend so many hours on the road and arrive fresh and effective in dealing with child, parent, program and agency. Other problems in the area include bad road conditions, inclement weather, mechanical problems, missed appointments and finding the time to keep up with paper work.

There are still other difficulties involved in maintaining an Outreach program, but many can be worked out with the selection of appropriate staff.

Current programming provides services for fifty-four deaf-blind children, either in the home or through other agencies. Inservice training is continued for programs throughout the state. The current staff includes the assistant director, the coordinator of the Indian program, and two aides.

The team plans to establish a resource room where materials will be housed for the staff as well as for programs and parents. Also, a state-wide parent group is being organized. A referral service is maintained for children classified as suspected deaf-blind who are not appropriate for deaf-blind services, but who need a special program. Ongoing case-finding by all members of the Outreach staff for possible future services is being maintained.

The Indian case-finding component has been in existence for three months, following basically the guidelines established in setting up the state-wide Outreach program. The specific Indian culture must be taken into consideration and ways found to overcome the language difference.

To date, twelve Indian children have been identified as appropriate for deaf-blind services. Case-finding will continue as will the obtaining of additional information on all the children. Treatment will focus on training Indian personnel to work with families in their respective Pueblos and reservations. Additional trained deaf-blind personnel will be utilized at this phase of the program.

The task of providing services for deaf-blind children on a state-wide basis is a difficult one, but the need is great. The challenge must be met so that deaf-blind children and their families can continue to develop their ability to understand and cope with their present circumstances and grow towards a better future.

EVALUATION OF DEAF-BLIND PROGRAMS

Dr. Lee Brooks
Mountain-Plains Regional Center

In March, 1973, John Brademas, Congressman from Indiana delivered a speech on accountability in education wherein he emphasized the need to take into consideration the "relational" aspect of the concept of accountability. The "relational" aspect was defined as a responsibility for the client in our educational endeavors which is mutually shared by the various levels within the educational hierarchy.*

Instead of the focus of attention being the teacher who will be responsible for what happens or fails to happen in a given educational program, the "relational" concept would seek to identify the responsibilities of the various service components in the educational hierarchy and as remissions in these responsibilities are observed, efforts would be made to instigate appropriate action for positive change.

The educational hierarchy may be represented by the following diagram:

child (program)
↑
teachers, aides, specialists
(parents)
↕
program supervisor-administration
↑
state liaison persons - state special
education programs
↕
regional office staff
↕
federal project office - BEH
HEW
↕
funding source

According to Brademas, the implementation of the concept of "relational" accountability can eliminate the current "scapegoating" which makes the teacher the focal point of the accountability process.

**Speech delivered by John Brademas, at a symposium on accountability in education sponsored by the Department of Foundations of Education, College of Education, Memphis State University.*

The Child As The Focus Of The Evaluation Process

One way of evolving an accountability model, which really seems too obvious to be seriously considered, is to look at the child and what he achieves or fails to achieve as the basis for both defining and then identifying remissions of responsibility in the educational hierarchy. As Brademas states: "The only way that I (the teacher) can agree, in a moral sense, to make some attempt to be accountable for the actions of persons not fully under my control (students) is if those persons are presented to me with all negative conditions removed." The responsibility for optimizing those "negative conditions", which function as constraints in the teacher-child relationship, falls elsewhere in the educational hierarchy. The function of the accountability system is to identify where such responsibility lies and propose alternatives for resolution.

The Development Of Child Plans As The Basis Of Deaf-Blind Program Evaluation

The Request for Proposal from the Bureau of the Education for the Handicapped for the upcoming fiscal year (1974-75) emphasized that "child-by-child" plans be developed for each deaf-blind child being served. This change is considered to be supportive of the current philosophy and implementation plans for evolving an evaluation system within the Mountain Plains Regional Center. It is believed that by working to define and implement the concept of child plans throughout our region we will be able to evolve a system whereby the "relational" concept advocated by Brademas may be implemented. Such child plans, when developed and implemented, can form the basis for Program Evaluation Reports, which will set in motion a procedure or system which will serve to identify and pinpoint lapses of responsibility in the hierarchy diagrammed earlier.

Components Of The Child Plan

The input for the Child Plan was developed by working with teachers, aides, specialists, parents, and administrators who are currently involved with deaf-blind children within the Mountain Plains Region.

The following question was put to the participants in a series of meetings on evaluation. "What kind of information, both initial and ongoing would you need if you were assigned to work with a deaf-blind child"? Implied in this question was the assumption that procedures would be suggested for accomplishing this task. This technique yielded a format or design for the Child Plan which is identified below.

Child Plan

I. *Diagnostic staffing outcomes which provide initial and periodically updated information relating to the child's physical, psychological, educational or training, social and family situation. Included should be functional and prescriptive information when available and appropriate. It was stressed that this information be summarized and put in clear, non-technical language.*

II. *Evidence of baseline development for the child which may include the results of an initial observational and diagnostic teaching period, the use of developmental scales, and the use of media such as videotaping.*

III. *Evidence of the establishment of goals and objectives for the child which result in personnel assignments, a schedule of activities, assignment of strategies, techniques or procedures to be tried, and the equipment and/or materials needed.*

It is emphasized that this procedure be accomplished by a team effort; the team being comprised of those people who have worked with, or will be working with the child.

IV. *Evidence of ongoing "in-house" staffing, comprised of the same team members involved in part III. This review of the child's status, which would take place routinely - maybe every eight weeks - or whenever special conditions indicate the need, may result in various recommendations which might include changes in personnel assignment, increasing or restricting activities, changes in goals, objectives, strategies, etc.*

In summary, these components of the child plan, will by their extent of fulfillment, mirror both the strengths and constraints within the program. Through skillfully summating this information from the various child plans, a program supervisor may develop a program summary report which incidentally is the title of the next section.

Program Summary Report

I. *Summary of child progress*

   A. *strengths*

   B. *constraints*

   Note: In this section the evidence of child growth as reflected from the various plans would provide the input for some generalized conclusions about a given program concerning strengths and weaknesses.

II. *Program Recommendations*

   A. *Personnel - In this section recommendations would be made for personnel needs which would be strongly supported by the child data available. Such recommendations may be for teacher and/or aides, or they may be for specialist involvement. A rationale* should be developed which will show how these personnel requested will respond to individual child plans rather than attempting to justify such requests based on some arbitrary standard.

III. Inservice - The implications for this area of recommendation are open-ended. Such recommendations may include the rather obvious need for staff inservice experience to a need for training for physicians to enable them to provide more communicable reports in their diagnostic team involvement. The important input is, as in all parts of the report, that such recommendations be supported by evidence from the child plans.

IV. Physical Space, Equipment, Materials - In those areas where constraints exist in a given program due to a lack of these components, such recommendations should show how the requested space, equipment or materials will be used to facilitate child goals and objectives.

V. Other - This obviously is a broad category where recommendations may serve to meet the individual needs of programs (children) which were not covered in the preceding areas. Some of the things that come to mind include (1) need for equipment maintenance, (2) better nutrition for children (and teachers?), (3) expanded recreational facilities and/or opportunities for children, and (4) other.

These reports which should represent the best efforts of the supervising teacher and staff would be developed, according to the present plan, twice yearly.

The first report, due in early November of each year, would provide program administrators and the regional office staff (the recipients) with valuable information which will contribute to the development of the proposal for continuation of funding. The second report is planned for an interim date (yet to be determined), when funds which are allocated to programs and have not been expended may be better directed in use to respond to child-program needs.

This manner of program reporting, if conscientiously accomplished will serve to identify the difference between what children are accomplishing and what they need to accomplish. It will further serve to aid in identifying the responsibilities of the supporting components of the overall program - pinpointing lapses in those responsibilities - and finally, testing the commitment of all those concerned for the welfare of our deaf-blind population.